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ABSTRACT

This guide is a collection of supplemental units in environmental activities for integration into home economics curricula. Units are organized according to concepts and grade level (7-12) involved. Materials include resource listings, newspaper references, transparency masters, and suggested learning experiences. This work was prepared under an ESEA Title III contract. (LS)

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NATIONAL INSTITUTE OF
EDUCATION

ED 086506

ADDENDA TO HOME ECONOMICS CURRICULUM GUIDES

ENVIRONMENTAL EDUCATION

(WORK COPY)

Department of Elementary and Secondary Education

Division of Curriculum and Instruction

Milwaukee Public Schools

1972

SE016 980

ACKNOWLEDGEMENT

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FORWARD

Environmental education is not a new subject, nor does it belong to any specific discipline. The following definition is from a Senate report; it states that:

> Environmental education is an integrated process which deals with man's interrelationship with his natural and man-made surroundings, including the relation of population growth, pollution, resource allocation and depletion, conservation, technology, and urban rural planning to the total human environment. Environmental education is a study of the factors influencing ecosystems, mental and physical growth, living and working conditions, decaying cities, and population pressures. Environmental education is intended to promote among citizens the awareness and understanding of the environment, our relationship to it, and the concern and responsible action necessary to assure our survival and to improve the quality of life.

As you read the above definition, you probably recognized several concepts that you have been teaching in your classroom. This guide is an attempt to develop materials that may be integrated with the existing materials. This guide will emphasize environmental concepts and although units of study have been designated for particular grade levels, feel free to adopt any unit to meet your students' needs. The concepts developed in the guide are not all inclusive. It is hoped that you will find these ideas helpful and use them as a springboard to additional activities.

It is important to be cognizant of the following objectives:

1. To develop an awareness of and responsibility to the total environment.

2. To cultivate a larger concept of and an appreciation of the environment.

3. To engage students, in a meaningful way, in attempting to minimize and/or solve the environmental problems.

To paraphrase Thoreau, no home is of any value without "a tolerable planet" to live on. Cleanliness, convenience, and efficiency within the home is of limited value if it is obtained at the expense of the harmony and balance of the living Earth.

SOME ENVIRONMENTAL CONCEPTS

1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

3. Environmental factors are limiting on the numbers of organisms living within their influence; thus, each environment has a carrying capacity.

4. An adequate supply of pure water is essential to life.

5. An adequate supply of clean air is essential for life.

6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

9. Man has the ability to manage, manipulate, and change his environment.

    a. Short-term economic gains may produce long-term environmental losses.

    b. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

    c. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

MAJOR CONCEPT CATEGORIES APPLICATION CHECKLIST

Subject Home Economics Grade level 7 List below Logical Unit Divisions	1 Sun Energy	2 Interaction of Ecosystem	3 Carrying Capacity	4 Water Supply	5 Air Supply	6 Resource Distribution	7 Influences for change	8 Cultural, Economic, Social Political factor	9 Manipulation	9a Short term-Long-Term factors	9b Individual Alterations	9c Stewardship and Rights			See list for Concepts
Introduction to Home Economics	X								X						
Living Happily with Friends and Family		X						X							
Safety in the Home			X												
Discovering Foods for Family and Friends	X								X						
Sharing						X			X						
Providing for Being Well-Groomed	X								X						
Discovering Talent for Making Related Projects									X						
Learning to Know, Enjoy, and Care for Children		X						X							

MAJOR CONCEPT CATEGORIES APPLICATION CHECKLIST

Subject Home Economics Grade level 9 List below Logical Unit Divisions	1 Sun Energy	2 Interaction of Ecosystems	3 Carrying Capacity	4 Water Supply	5 Air Supply	6 Resource Distribution	7 Influences for change	8 Cultural, Economic, Social Political factor	9 Manipulation	9a Short term-Long-Term factors	9b Individual Alterations	9c Stewardship and Rights			See list for Concepts
You and Home Economics															
Making the Most of You															
The Food in Your Life	X		X Power												
You and Social Poise		X						X							
You, Your Clothing and Your Appearance	X														
You and Money									X						
You and Your Surroundings		X Noise				X									
Children and You		X						X							
You and Your Family		X Noise						X							
Consumer Education									X						

MAJOR CONCEPT CATEGORIES APPLICATION CHECKLIST

Subject Home Economics Grade level 10-12 List below Logical Unit Divisions	1 Sun Energy	2 Interaction of Ecosystem	3 Carrying Capacity	4 Water Supply	5 Air Supply	6 Resource Distribution	7 Influences for change	8 Cultural, Economic, Social Political factor	9 Manipulation	9a Short term-Long-Term factors	9b Individual Alterations	9c Stewardship and Rights			See list for Concepts
Family Living			X												
Family Management						X		X	X	X	X				
Foods and Nutrition	X		X			X	X	X	X						
Home Planning								X	X						
Child Development															
Clothing and Textiles															

ADDENDUM TO HOME ECONOMICS

CURRICULUM GUIDES

ENVIRONMENTAL EDUCATION

(Work Copy)

HOME ECONOMICS

Developed Under Provisions of

ESEA TITLE III, ENVIRONMENTAL EDUCATION PROGRAM

Department of Elementary and Secondary Education

Division of Curriculum and Instruction

Milwaukee Public Schools

1972

Home Economics

The Food In Your Life

Environmental Education Problem -- Power Consumption

Major Concept 1 -- Environmental factors are limiting on the number of organisms the environment can adequately support.

Major Objective 1 -- Perceive the relationship among individual action and significant environmental alterations.

Generalization -- Consumer restraint and wise use of electricity is essential.

Generalizations	Learning Experiences	Outcomes
Society requires an energy input to maintain itself and carry on essential activities. Individual management of resources affect the larger economy.	Compare the consumption of electricity today and ten years ago. Chart home appliances, wattage and number of Kilowatts used per hour. Choose one appliance and investigate environmental significance. Read "How To Cool It - Without Electricity."	Identifies factors contributing to increasing demands for electricity.
Knowledge of facts, alternatives and reliable resources aid decision making.	Discuss basic sources of electricity. Investigate the problems and alternatives involved in the production of electricity. Organize a field trip to a power plant or nuclear power plant. Discuss ways of conserving electricity.	Plans ways to conserve electricity.

TEACHING AIDS

TEACHER REFERENCES

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Rosefsky, R.: "How To Cool It - Without Electricity": MILWAUKEE JOURNAL; July 18, 1971.

RESOURCE PERSONNEL

Mathematics Teachers

Science Teachers

RESOURCE AGENCY

Wisconsin Electric Power Company
Mr. Dan Sullivan
231 West Michigan
Milwaukee, Wisconsin 53201

Sense With Dollars

How to Cool It—Without Electricity

By Robert S. Rosefsky
Financial Counselor

There was a time, at the start of each summer, when you'd read and hear a lot about how to keep cool, and how to keep cooling expenses at a minimum. They were public service announcements. We paid attention or we didn't.

That was before we woke up and found ourselves living in a cesspool.

It's time for the tips again. The tips themselves haven't changed much, but the reasons for paying attention to them have. For here in the year 1971, we're in a terrifying dilemma. In many parts of the nation, we're consuming more electricity than can be produced, which causes power shortages, or brownouts. The dangers that can go along with them, which can be cured by the creation of more electricity, which in turn will spew untold billions of tons of more pollutants into our lungs, and which will waste or pollute billions of gallons of water, mean that in the name of "the good life," we are collectively and individually committing suicide.

The year's tips — and good ones they are — come from a booklet prepared by the National Bureau of Standards, in cooperation with the President's Office of Consumer Affairs. In announcing publication of the booklet, Virginia Knauer stated, "I want every American to read the findings in the report. By following some of these recommendations, consumers will not only cut down on their own fuel bills, but they will also help reduce environmental pollution. Efforts by consumers may well mean the difference between full service or a blackout."

You can obtain the booklet free by writing to the Office of Consumer Affairs, The White House, Washington, D. C. 20506.

In the meantime, here are some highlights:

Prevent excessive entry of outdoor air into your home by weatherstripping windows and doors, sealing cracks in exterior walls, closing fireplace dampers, keeping storm windows and doors in place during the air conditioning season.

Solar heat gain in your house can be reduced as much as 50%, by use of blinds or draperies; 40% to 75%, by use of heat absorbing and reflective window glass; and as much as 80%, by the use of properly designed external shading devices, such as awnings, side fins, louvered sun screens and even trees.

Proper ceiling and wall insulation can pay for itself within a few short years in fuel savings, both summer and winter.

Strictly limit use of nonessential electrical lights and appliances, especially such high demand items as irons, hair dryers, toasters, television sets, ovens.

Los Angeles Times

commentary
commentary

Another Look at Solutions to Air Pollution

BY ELEANOR ADAMS

THE CALL to "environmental action" is being sounded across our land by dozens of different voices. Some show reasoned calm; others are strident and irrational. But their message is essentially the same: become involved in trying to preserve the environment by more restrained personal consumption and by encouraging group action against polluters.

The subject of air pollution is one of the most sensitive environmental areas. We are being urged to stop driving our cars, to bicycle or walk instead, to buy non-leaded gasolines, and to conserve electricity. A few of the ways being suggested to conserve electricity are sometimes laughable.

For instance, Stewart L. Udall, former Secretary of the Interior and a man who should know better, recently wrote a newspaper article urging, "Cut down the use of electricity throughout your home. Turn off unneeded lights." Fine, so far. Then he suggested, "Open cans with wrist power, not electric power."

Do you know how many kilowatt hours an electric can opener will consume during one year of normal use? *One* kilowatt hour per year, which is the equivalent of burning one 100-watt bulb for a single hour. That's barely enough to be recorded on your meter. If you really want to cut down, turn off those 100-watt bulbs that you leave on day and night in your kitchen and bathroom.

I recently read a statement that said, "The environment winces every time you use your electric toothbrush." Now really! The electric toothbrush normally uses 5 kilowatt hours a year — the amount of electricity it would take to light one 100-watt bulb for five hours. Many dentists are recommending the use of both the electric toothbrush and the electric hygienic water device, so it would seem unwise to cut those out in the name of anti-pollution, especially since the savings of electric current is minimal.

On the other hand, one might well question the wisdom of investing in one of the new water beds, the electrically heated, water-filled vinyl mattresses. In spite of their cost ($500-$700), one dealer reported sales of 1,250 of the beds in the last four months. The electric heater for the bed is reported to use $3 of electricity per month (about 1200 kilowatt hours per year)!

Some small appliances that have been blamed by the environmentalists for polluting the air really do not fall into the culprit class. These would include an electric carving knife (consuming annually an estimated 8 kilowatt hours), a sewing machine (11 kilowatt hours), a food mixer (13 kilowatt hours), a hair dryer (14 kilowatt hours), a food blender (15 kilowatt hours), and an electric shaver (18 kilowatt hours).

Compare these figures with an electric dishwasher (consuming 363 kilowatt hours annually), a 14-cubic-foot refrigerator-freezer (1,137 kilowatt hours), or a window air conditioner (1,389 kilowatt hours). It makes common sense to conserve electricity at all seasons of the year — that is, to use only what you need without being wasteful. That would mean turning on your dishwasher only when you have a full load of dishes (this saves water as well as electricity). The same holds true for an automatic washing machine (103 kilowatt hours) unless it has a special cycle for small loads.

There are even ways you can use your air conditioner more economically. For instance, turn off your air-conditioning when you're away from home. When you are home, set it at low or medium, not high. If your air conditioning unit has a thermostat, don't set it below 75 degrees. Try to use major appliances, such as laundry equipment and dishwasher, before 8 a.m. and after 7 p.m. or on the weekends (watch out for those peak demand hours from 5 to 7 p.m.).

Electric utilities, generally, bear much of the blame for air pollution, frequently because every white billow issuing forth from a generating sub-station stack is assumed to be a pollutant. Often those billows are simply steam, which is nonpolluting. According to a study made by McGraw-Hill's *Electrical World*, during the past decade, utilities have purchased 90 per cent of all air pollution control equipment sold in the United States, though as a group they contribute only 11 per cent to 15 per cent of all air pollutants.

As a nation our consumption of electric energy has been doubling every decade. We demand more and more power for expanding mass transit, for improved street lighting, for urban renewal projects, while resenting blackouts caused by overloading of existing facilities. At the same time, as *Electrical World* points out, "It is currently fashionable, in the name of 'environment,' to thwart the local utility's attempts to build new power facilities." This complex problem has no easy answer, though obviously a more enlightened public might help.

Permission granted to reprint from Forecast, April, 1971.

Home Economics

The Food In Your Life

Environmental Education Problem -- Consumer Consumption/Use of Resources

Major Concept 2 -- Energy from the sun is converted through plant photosynthesis into a form all living organisms can utilize for life processes.

Major Objective 2 -- Perceives the importance of photosynthesis in the production of food.

Generalization -- All living organisms are dependent upon plants for food production.

Generalizations	Learning Experiences	Outcomes
Photosynthesis is necessary for the survival of all organisms.	View transparencies.photosynthesis and tropic organization. Define photosynthesis and tropic organization. View filmstrip -"Food From the Sun." Buzz session--What Makes Our Food - Plants or Animals? Complete the Sea Island Life Cycle activity. Prepare a bulletin board illustrating plants used as a source of food and for production of food.	Interprets the inter-relationship among photosynthesis and sources of food.
Food is the basic source of nutrients and energy.	Develop a food chain. Observe aquarium tank; relate to food chain.	Designs a simple food chain.

TEACHING AIDS

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TRANSPARENCIES MASTERS

Photosynthesis

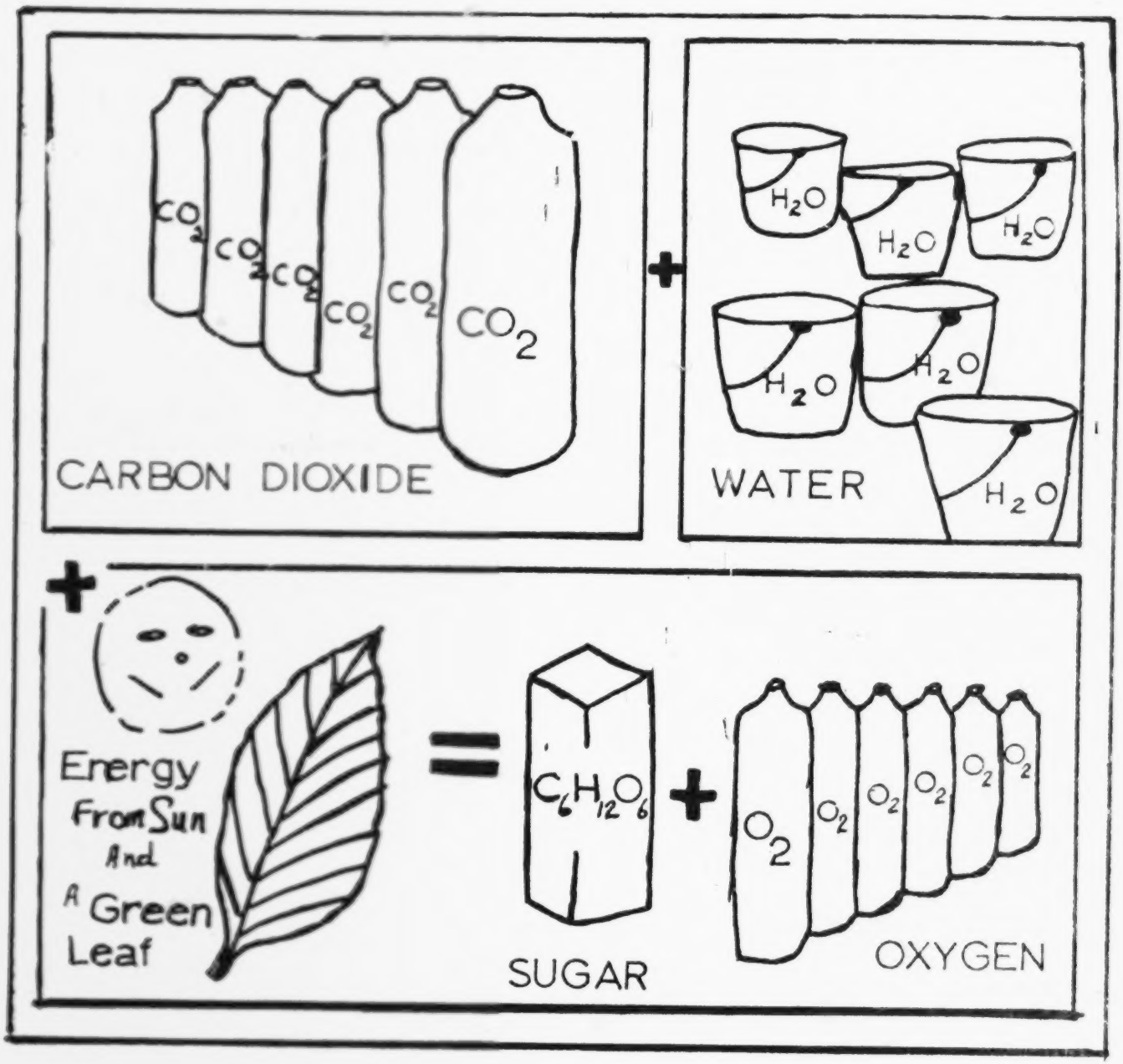
Man Uses Plants - For Food Production

Model of Tropic Organization

Plants - Source of Our Food

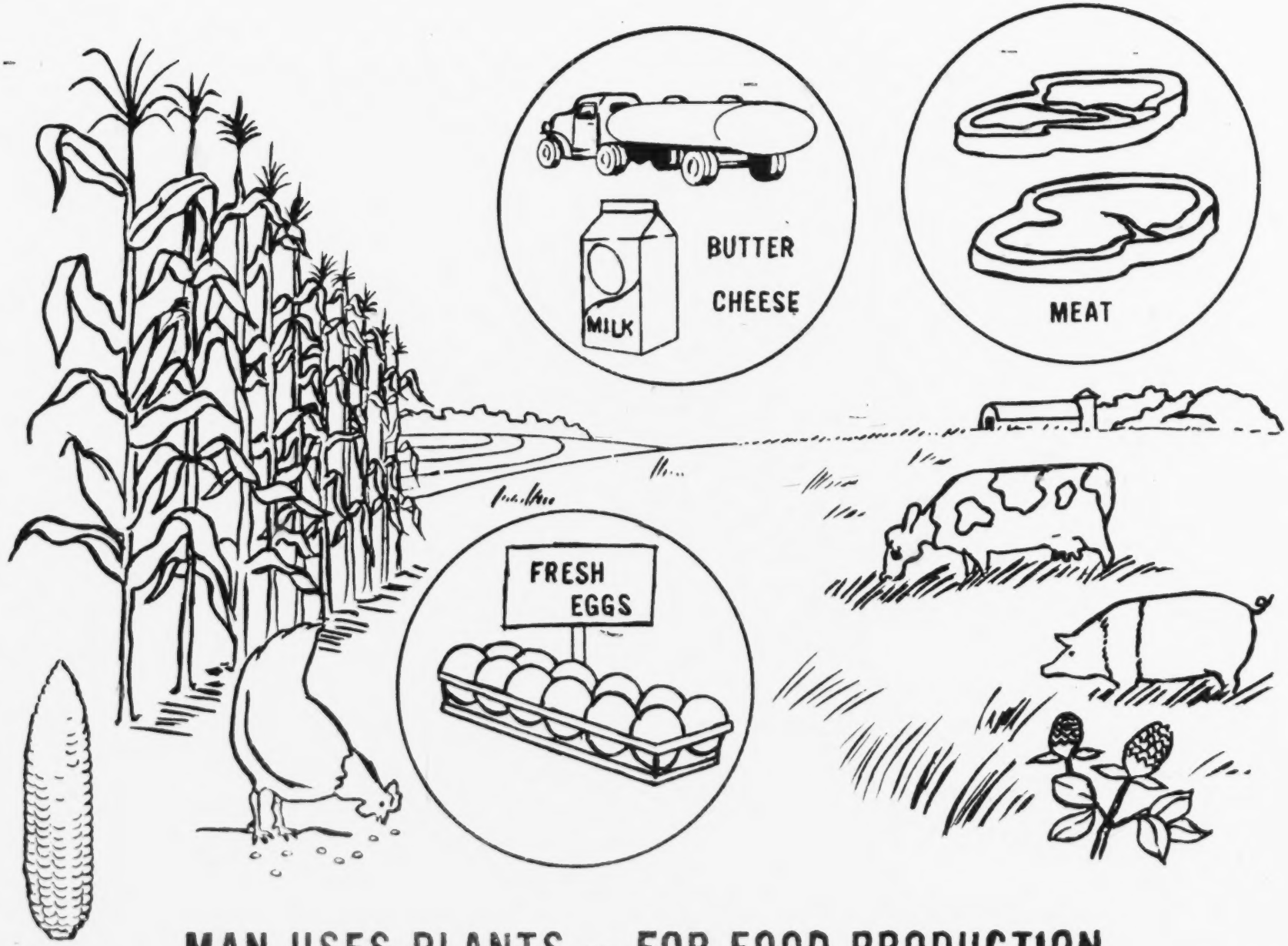
I Am Fish

Sea Island Life Cycle



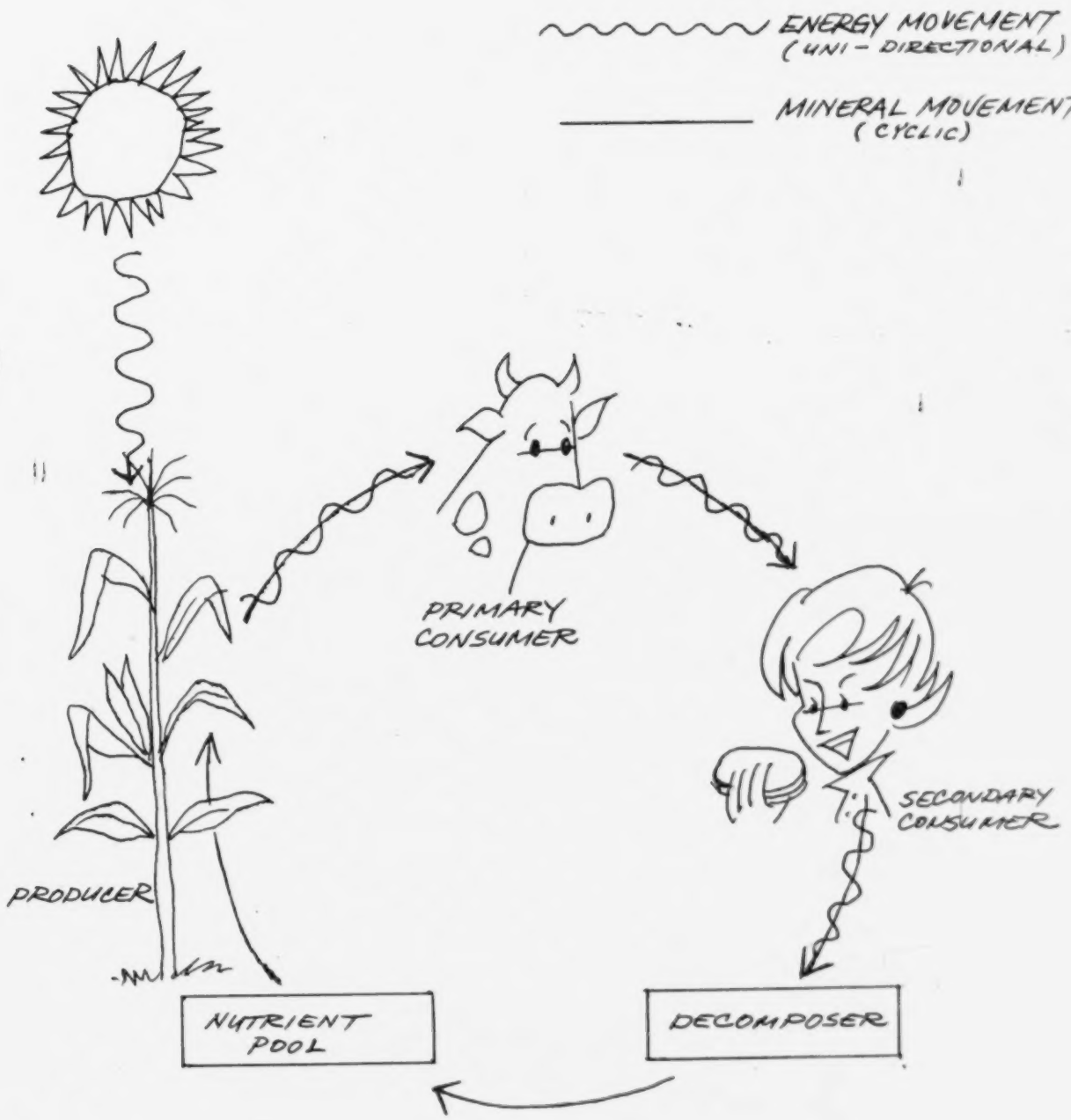
$$6CO_2 + 6H_2O \overset{\text{sun}}{\underset{\text{green plant}}{=}} C_6H_{12}O_6 + 6O_2$$

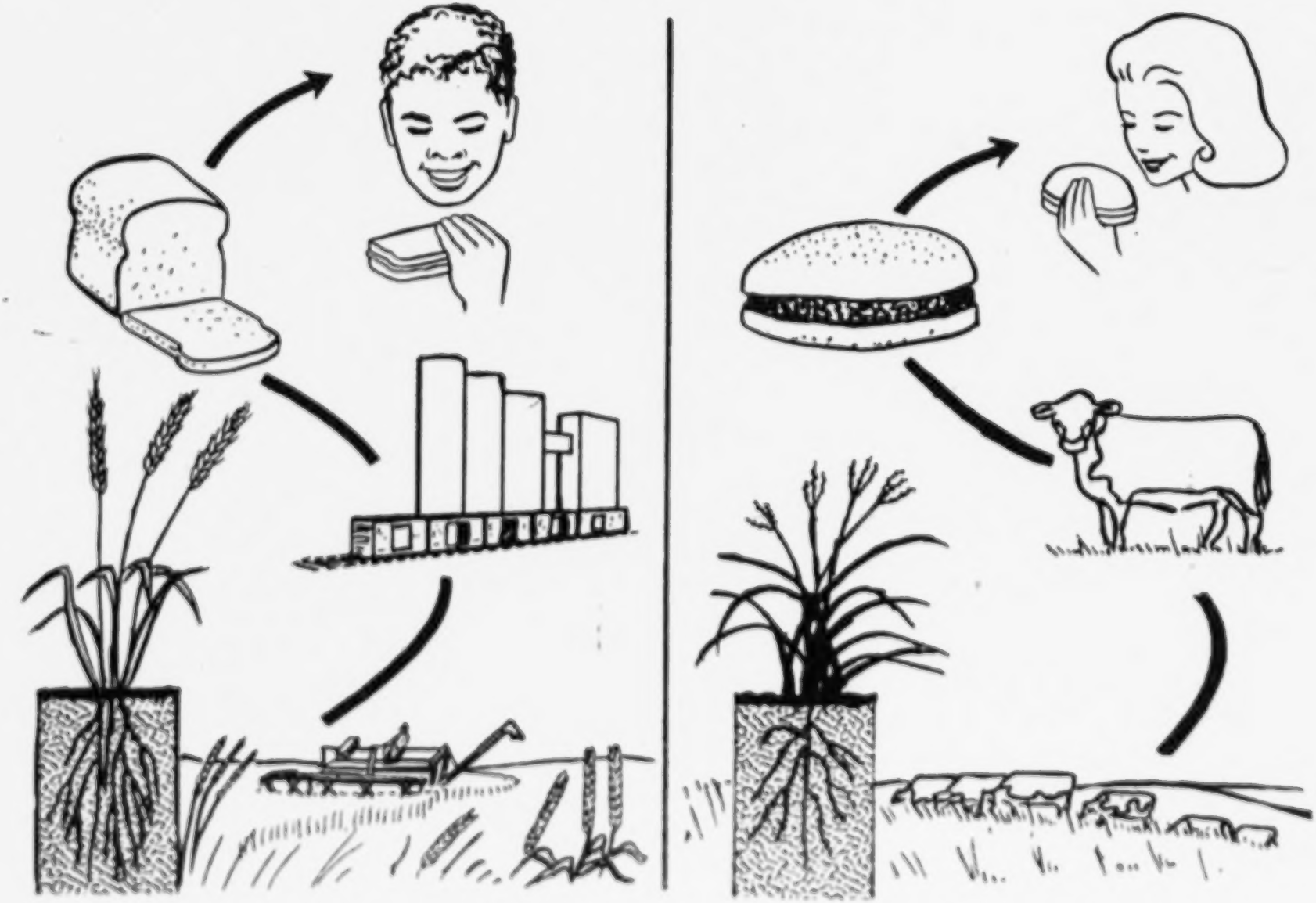
PHOTOSYNTHESIS



MAN USES PLANTS -- FOR FOOD PRODUCTION

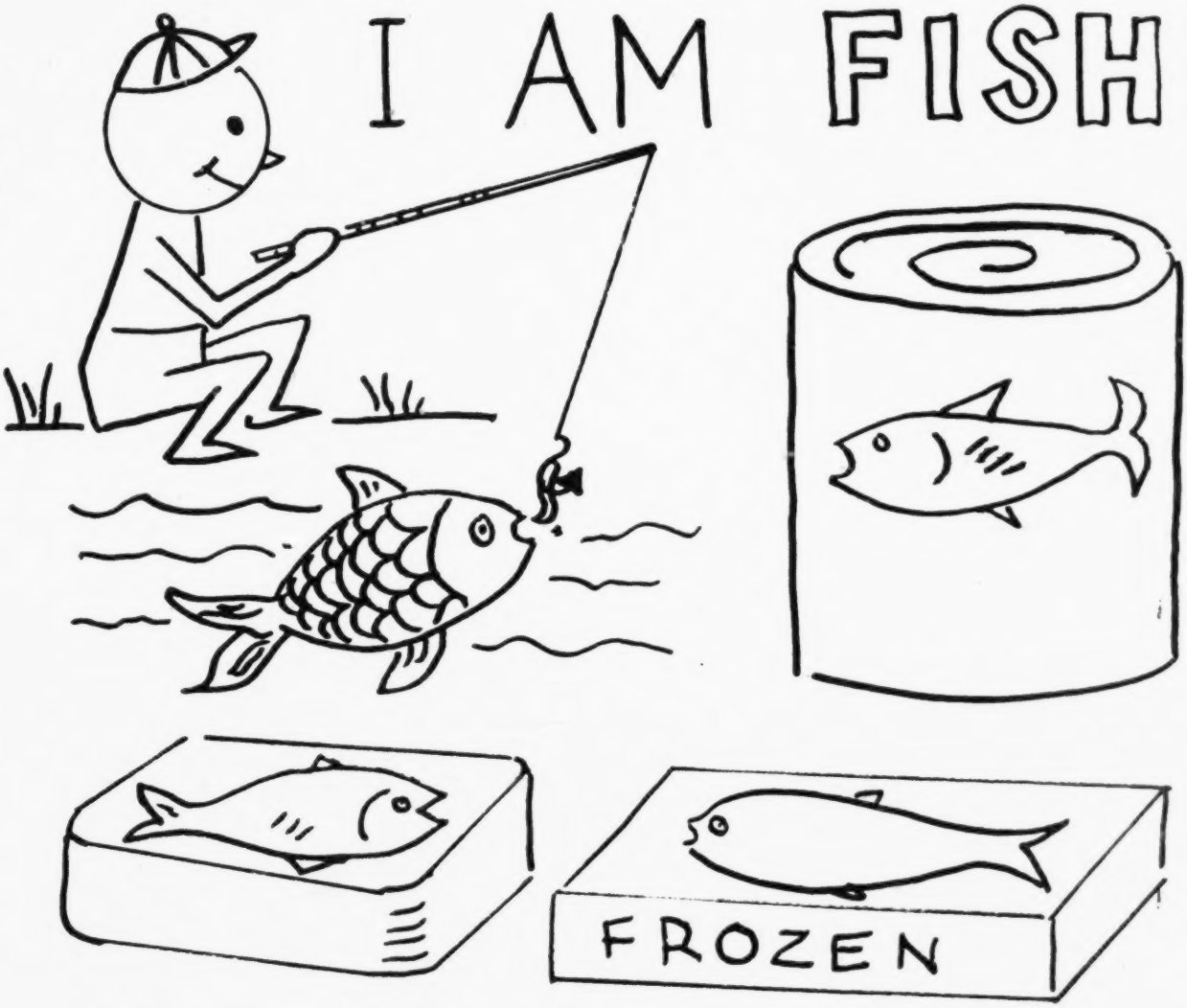
MODEL OF TROPIC ORGANIZATION





PLANTS -- SOURCE OF OUR FOOD

I AM FISH



Sometimes you catch me from the water

Sometimes I come in a can or a box. My protein helps build muscle.

SEA ISLAND LIFE CYCLE

Forty miles from the Coast of Newfoundland is a Sea Island and one of nature's basic life cycles. The flow of this five-part food chain makes a fascinating visual game of interdependency.

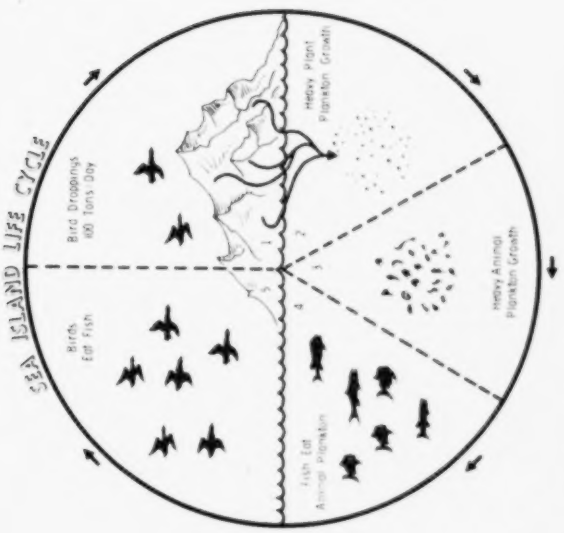
Project the diagram. Cover sections 2, 3, and 4.

The game is designed so that any combinations of sections can be covered. Play "fill in the blanks" until the chain is well understood.

The students should be directed to respond to the following questions.

1. What will be the effect if the fisherman discovers the larger school of fish?
2. What will be the effect if the bird droppings are harvested for fertilizer?
3. What will be the effect if the birds are trapped or shot for their feathers and food source.

Discuss the drastic changes man can produce.



Society and Compromise

Students build a bulletin board environment using cut-out pictures of things they like in the out-of-doors. When the board is complete they are confronted with the problem of constructing a school or highway. Where will it go? What things will suffer? Who will decide?

By making decisions, they realize the interrelated problems in environmental management that result from individual values and attitudes.

Are you or your students increasingly faced with such questions as:
—What are the *costs* of *litter* pick up?
—How do *liquid wastes* affect the *ecology* of *water systems*?
—What are the *projected changes* of *transportation's* effect on *man's health* in *urban* areas?
—*Historically*, how has *agriculture* affected *ecology*?
—And many others? (The italicized words are EE Card retrieval words)

By Dr. David Archbald, and the
WISCONSIN JOURNAL OF EDUCATION,
February, 1972

Home Economics

You and Your Money

Environmental Education Problem — Awareness of Consumer Consumption.

Major Concept 3 — Man has the ability to manage, manipulate, and change the environment.

Major Objective 3 — Demonstrates an awareness of environmental problems through restrained consumption and wise use of resources.

Generalization — Knowledge of environment is essential in the management, manipulation and changing of the environment.

Generalizations	Learning Experiences	Outcomes
Individual management of resources affects the larger economy.	Complete the National Environment Pre-test.	Identifies factors contributing to pollution.
	Conduct Survey of Ecological Activities. Report findings.	
	Complete sheet, Ecologically Sound Products. Discuss implications of choices. Determine which are economically feasible.	
Values and goals are reflected in decision making.	Develop a list of environmental problems.	
	Complete Vocabulary Quiz.	Prepare bulletin board—<u>The Solution to Pollution Is You!</u>
	Arrange a field trip to immediate neighborhood areas and investigate environmental problems.	

EE Problem, Major Concept 3, Major Objective 3, & Generalization (Continued)

	List values and goals, illustrated in personal choice of goods and services. Trace one item to final disposal.	
Knowledge of facts and reliable resources is essential in decision making.	Chart community agencies responsible for environmental problems and control. Investigate services offered by two of these agencies.	Identifies several environmental community resources.
Knowledge of alternatives aids decision making.	Collect environmental resource materials. Develop bulletin board illustrating reliable community resources.	Supports the activities of a community environmental action group.
Careful evaluation of advertisements and products may improve the functioning of the marketplace.	Discuss the importance of individual care of the environment. Consider the following questions: 1. What am I doing to improve the environment? 2. What am I doing to affect the quality of goods and services? 3. Is my contribution meaningful? 4. What changes have I been able to effect? Complete ecological sound practices. Prepare a description of an ecological household. Complete Scram-let. Complete National Environment Post-test.	Summarizes the impact of individual management of resources on environmental problems.

TEACHER AIDS

TEACHER RESOURCES

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RESOURCE AGENCIES

Bureau of Consumer Protection
Environmental Health
Milwaukee Health Department
801 North Broadway
Milwaukee, Wisconsin

David P. Cook
Center for Consumer Affairs
600 West Kilbourn Street
Milwaukee, Wisconsin 53203

Environmental Protection Agency
Office of Public Inquiries
401 M Street S.W. Waterside Mall
Washington, D.C. 20460

Mrs. Camille M. Haney
Consumer Affairs Coordinator
State of Wisconsin
Department of Justice
Madison, Wisconsin 53702

Milwaukee County Air Pollution Control
9722 West Watertown Plank Rd.
Milwaukee, Wisconsin

RESOURCE AGENCIES (continued)

Office of Consumer Affairs
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C.

The Conservation Education Association
Box 450
Madison, Wisconsin 53701
(Guidelines For Citizen Action On Environmental Problems)

Concern, Inc.
2233 Wisconsin Avenue, N.W.
Washington, D.C. 20007

M.U.S.T.B.E.
c/o John Haak
841 North 15th Street
Milwaukee, Wisconsin 53233

Federal Trade Commission, Division of Education
Bureau of Consumer Protection
Pennsylvania Avenue and 6th Street N.W.
Washington, D.C. 20580
(Labeling of detergents and octane ratings on gas pumps.)

Food and Drug Administration
Office of Consumer Affairs
Park Lawn Building
5600 Fisher's Lane
Rockville, Maryland 20852
(Food labeling.)

Name_____

Date_____

Hour_____

SURVEY OF ECOLOGICAL ACTIVITIES

Directions: **Answer** yes or no to the following questions.

_____ 1. Do you buy beverages in returnable bottles?

_____ 2. Do you leave lights burning unnecessarily?

_____ 3. Do you refrain from buying items in plastic containers?

_____ 4. Do you use non-phosphate detergents?

_____ 5. Do you save and/or collect newspaper for recycling?

_____ 6. Do you limit your use of throw away paper products?

_____ 7. Do you save empty glass bottles and jars for recycling?

_____ 8. Have you written to any local, state, or federal government officials or agencies regarding ecological issues?

_____ 9. Do you save tin cans?

_____ 10. Are you involved in any environmental activities?

_____ 11. Do you try to conserve water whenever possible?

_____ 12. Do you play record players or radios loudly for an extended length of time?

_____ 13. Do you feel that wild animals have any rights?

_____ 14. Do you enjoy camping, hiking, scouting and other outdoor recreations?

_____ 15. Do you think that conservation and ecology movements are necessary?

Name_____

Date_____

Hour_____

ECOLOGICALLY SOUND PRODUCTS

Directions: Draw a circle around the environmentally sound products.

Paper bags	Plastic bags
Wicker clothes hamper	Plastic hamper
Returnable bottles	Non-returnable bottles
Non-phosphate detergents	Phosphate detergents
Returnable bottles	Cans
Glass containers	Plastic containers
Polyethylene containers	Polyvinyl containers
D.D.T.	Milorganite
Handkerchiefs	Kleenex
Fabric Towels	Paper towels
Metal Cookware	Aluminum foil
Pyrex cookware	Metal cookware
Cotton pantsuit	Non-package products
Polyester pantsuit	Packaged products
Cotton/Dacron pantsuit	

Name _____

Date _____

Hour _____

VOCABULARY QUIZ

Directions: Fill in the blanks in the statements with correct words from the list below. Then put the words in correct places in the puzzle.

Environment	Pollution	Interdependence
Ecology	Stability	Interaction
	Cycle	

ACROSS

1. _____ is an interval of time during which a sequence of a recurring succession of events or phenomena is completed.

2. _____ is a mutual relation upon one another, a cross relationship.

3. _____ is anything that interferes with the proper functioning of the ecosystem.

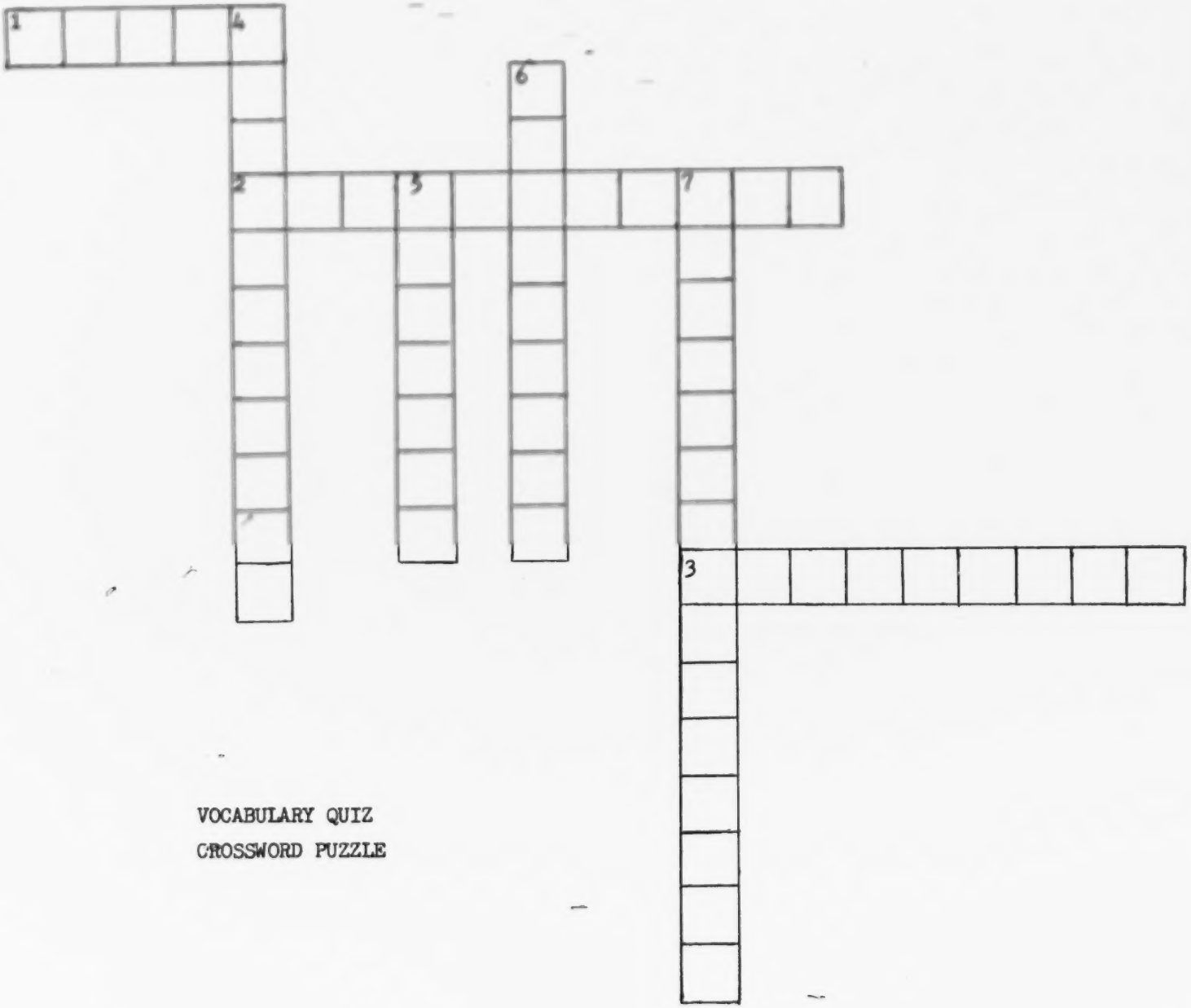
DOWN

4. _____ is our surroundings, living and non-living, which have an effect on us.

5. _____ is the study of the effects living things, by their life processes and death, have on each other and to their physical environment.

6. _____ is the strength to endure or resist chemical changes and physical disintegration.

7. _____ is the act of depending upon one another for existence.



VOCABULARY QUIZ

CROSSWORD PUZZLE

ANSWERS TO VOCABULARY QUIZ

ACROSS

1. Cycle is an interval of time during which a sequence of a recurring succession of events or phenomena is completed.

3. Pollution is anything that interferes with the proper functioning of the ecosystem.

2. Interaction is a mutual relation upon one another, a cross relationship.

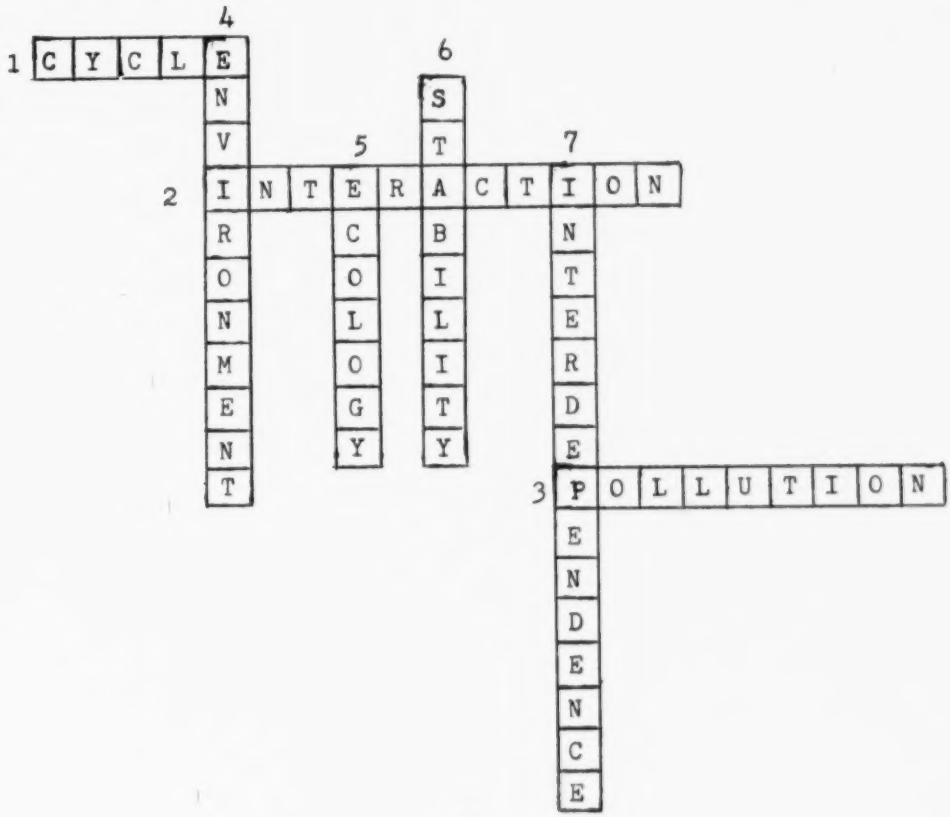
DOWN

5. Ecology is the study of the effects living things, by their life processes and death, have on each other and to their physical environment.

4. Environment is our surroundings, living and non-living, which have effect on us.

6. Stability is the strength to endure or resist to chemical changes and physical disintegration.

7. Interdependence is the act of depending upon one another for existence.



Name_____

Date_____

Hour_____

SCRAM - LET

1. Rearrange the 6 scrambled words below to make 6 simple words. Print letters of each in its line of squares.

P E X N E D						
1					2	

C A M I P T						
3						4

R E V O T S						
5						

G A M N E A						
6		7				8

N A G E C Y						
			9			

R O L L A D						
	10					11

2.

Print Numbered Letters Here	1	2	3	4	5	6	7	8	9	10	11

3.

Unscramble Letters in Step #2											

4. Complete the quotation by filling in the missing word you developed from step #3 below.

"Each dollar paid for the product that is harmful, the process that pollutes, the food that doesn't nourish, prolongs and expands the squandering of our resources. Therefore, every purchase you make is a vote for or against our _____."

ANSWERS TO SCRAM - LET

1.

PESNED					
1 E	X	P	E	2 N	D

CAMIPT					
3 I	M	P	A	C	4 T

REVOTS					
5 V	O	T	E	R	S

GAMNEA					
6 M	A	7 N	A	G	8 E

NAGECY					
A	G	E	9 N	C	Y

ROLLAD					
D	10 O	L	L	A	11 R

4. environment.

2.

Print Numbered Letters Here	1	2	3	4	5	6	7	8	9	10	11
	E	N	I	T	V	M	N	E	N	O	R

3.

Unscramble Letters	E	N	V	I	R	O	N	M	E	N	T

BY HENRIETTA FLECK, PH.D.
CHAIRMAN, HOME ECONOMICS DEPARTMENT, NEW YORK UNIVERSITY

Facing the Environmental Crises

IN 1848 AUGUSTE COMTE expressed an idea that has many implications for the present day: "Short as is our life, and feeble as is our reason, we cannot emancipate ourselves from the influence of our environment."

Less than 50 years ago, ecological threats were seldom discussed. There was a confidence in vast, natural resources, and generous space as panaceas to all problems. Now many resources are being depleted, space has been reduced, and the existence of society itself is threatened. Because these problems have been largely man-made, everyone must resort to collective interaction to seek solutions.

AWARENESS

An initial step for every home economist to take is to review her own stand on this crisis. What has she been thinking? Has she discussed the problem with others? What are her feelings? Has she taken any action?

Has any emphasis been given to this important subject in the classroom? Have mothers of students expressed a concern? Is there any action in the immediate community? In other words, how important should the condition of the environment be to a home economist?

ENVIRONMENTAL DECISION-MAKERS

Every person is involved in environmental decision-making, according to Dr. Kenneth Craik at the University of California at Berkeley. Little information is available about how Americans comprehend and evaluate their environment. A basic task stated by Craik is the development of psychological techniques that will yield information about any person's orientation to the everyday physical environment. This is a new area for research.

George McKechnie of the University of California has developed an Environmental Response Inventory that consists of 218 items expressing various ways in which persons may relate to their everyday physical environment. In the tests individuals indicate whether an item is descriptive of their views and typical behavior. Responses reveal characteristics such as pastoralism, urbanism, environmental adaptation, environmental well being, abstract conservationism, and environmental security. As these scales are refined, investigation of the acquisition and development of these attributes will be valuable.

Hopefully, some of these scales can be adapted for use in home economics. In the meantime, home economists, on their own, may explore how they comprehend their immediate physical environment, how they use it, how they shape it, and how it shapes them. In addition, these same ideas may be explored with students or with individuals with whom home economists work. The information gained may serve as a basis for action.

This interplay between human behavior and environment comprises an intricate network of complicated personal, societal, and physical variables, according to Craik. Furthermore, little is known about the attitudes, feelings, and comprehension of the physical environment by critical environmental decision-makers, such as architects, urban designers, transportation planners, landscape designers, managers of natural resources, or conservationists. Certain questions seem pertinent. What social and behavioral goals, if any, are sought through their policies, designs, and decisions? What is the extent of their success? Do they have working assumptions about man-environ- *(continued on page F-28)*

THE ENVIRONMENTAL CRISES

(continued from page F-9)

ment relations that guide their decisions? What unintended consequences have resulted from their decisions? In many respects, the home economist is an important decision-maker through her role of helping others to plan and to develop their home environment.

It is equally important for influential decision-makers to explore and evaluate the attitudes and knowledge about environment held by their clients. Architects and managers of natural resources, for example, are often quite remote from the people they serve.

CHALLENGES TO THINKING

This environmental crisis provides an excellent base to stimulate critical thinking related to many of the related issues. Students of all ages, viewers of mass media presentations, parents, individuals in the community, and other groups that are reached by home economists offer possibilities for involvement.

Questions for discussion might include the following: Where should garbage be deposited? Should a landscape of commanding beauty be destroyed if it is located above important mineral deposits? What decisions should be considered in the use of land for suburbs? Should forests be destroyed for purposes of making croplands? What laws are needed for greater environmental control? (Congress has enacted few significant laws related to the environment – most have been made during crisis.) Should a factory be permitted to discard pollutive wastes in a stream that is used for fishing? What economic considerations are involved? What recreational considerations? What steps can be taken to prevent the extinction of many forms of wildlife? Who shall pay for revitalizing our environment? How may open spaces be planned? What are the disadvantages of single-purpose planning, such as building a dam for greater water resources? In the discussion of these or smaller questions, students or participants should be encouraged to consider all facets of the question; to determine who would benefit and who would suffer from each decision explored; and to analyze the consequences for themselves, their homes and families, and for the immediate and wider community.

EXPERIENCES FOR STUDENTS

Many aspects of this environmental problem can be incorporated into class activities. Explore ways to abate noise in the home or in the community. Could other forms of transportation be considered in lieu of cars that create pollution, such as greater use of the bicycle? Take any package, such as a milk carton, used in the home economics laboratory and trace its final disposal. Keep a journal for several days and list activities that have an impact on the environment. Later, review decisions or dispositions made and consider improved means of action.

Explore ideas for better disposal of newspapers and magazines. Mrs. Phyllis Tortora and Mrs. Shirley Schecter of the staff of the home economics department at Queens College have suggested that the large Sunday newspaper might be sold in parts so customers could buy only those sections in which they are interested. This might lead to greater cost but advantages may be compensatory. Students may propose other alternatives. Newspaper clippings about the environmental situation are a good source for discussion material. The FHA, or a home economics class, may take the initiative in motivating the student body in planning environmental action programs.

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BOXES
LITTER
THE SOLUTION TO POLLUTION
IS YOU
be concerned
be informed
cooperate

environment THE FUTURE environment

Where Do We Go from Here?

BY PATTY CHAPIN

ANXIETY ABOUT the ravaged environment exploded into national headlines last spring. Alarm raced through the media, triggering a blast of angry accusations leveled against "technology," "big business," and the "greed of messy man." "The Environment" rocketed into the realm of national priority.

Barring massive legislation, the environmental problems of the future will quite likely be extensions of present woes, including congested traffic, crowded cities, garbage disposal, polluted air, and dirty water. These are the consequences of our rapid, indiscriminate application of technological progress. We embraced the versatile internal combustion engine without compensating for its smog-producing potential or planning for the necessary transportation networks. We hailed the advent of inexpensive mass-produced goods and ignored the alarming accumulation of discarded debris.

Due to technological advancements, each urban man now commands the equivalent energy of a retinue of 500 slaves. This explosive availability of energy poses a disguised threat. By way of illustration, imagine a population of white rats, each of which had the services of an elephant to do its work, run its errands, and cater to its wants. Confined in a limited space, one elephant's chaotic display of brute strength could easily reduce the environment to mass confusion and drive the rats insane. Such is man's plight.

It is easy to imagine how disgust with our mishandling of the environment could become just one more taunt against "the sick society." Unless guilt over what we have been doing is accompanied by a stronger sense of what to do instead, U. S. morale may sink to the point where we are unable to cope properly with the environment — or anything else. In the future, society must discard the reactionary politics of blame and obstruction in favor of integrated action if the environmental challenges are to be met.

The prevalent policy of blaming political scapegoats like phosphate detergents or utility companies for the environmental mess rarely yields constructive change. In fact, it is precisely this narrow focus that got us into the environmental dilemma in the first place. Economic specialist Max Ways, writing in *Fortune*, put it this way: "In modern society the principle of fragmentation outrunning the principle of unity is producing a higher and higher degree of disorder and disutility." For example, "A highway department's mission is defined by statute and by specific appropriations. As it goes about its assigned task of building the most road for the least measured cost, it rips up neighborhoods and landscapes, creating enormous social disutilities that never get into the department's benefit-cost calculations. A sanitation department, told to dispose of garbage, may tow it offshore and dump it. When the refuse washes back upon the beaches and into the estuaries, the problem belongs to some other department. Or the specialists in solid-waste disposal may burn trash and garbage in places and in ways that transfer the pollution to the air."

Just as the fragmented focus of technology, business, and government compounds environmental ills, the ad hoc reactions of special-purpose groups tend to prolong the ecological dilemma.

For example, when Consolidated Edison, the New York City utility, proposed to build a two million kilowatt pumped-storage plant at a scenic and historic area on the Hudson River, property owners and conservationists banded together in legal opposition to the plans. They scored a short-range victory; construction of the plant has yet to begin. However, New York citizens and industry alike are desperately in need of more power. Inevitably, a plant must be built — somewhere. The confrontation between the power plant and the environment has merely been evaded and postponed.

In the near future, Congress may debate a ban against phosphate detergents, the current public scapegoat for rapid eutrophication (aging of a body of water). If the product is banned, public clamor would probably subside but eutrophication might not. Reporting for *The Christian Science Monitor*, Leon W. Lindsay states, "The findings of three scientists (argue) that the abundant presence of carbon — not of the fertilizers nitrogen and phosphorus — sets off phenomenal growth of algae which can lead to eutrophication."

The restricted, negative nature of obstruction and blame is scarcely an antidote to the environmental ills threatening us. We can't govern by protest. Russell Train, former president of the Conservation Foundation in Washington who was appointed Undersecretary of the Interior, agrees, "You can't operate a going concern with protest as the main mechanism." A more positive approach of greater scope is needed to put our environment back together again.

(continued on page F-44)

PATTY CHAPIN IS ONE OF THE WINNERS OF THE 1970 FORECASTS ED[illegible] EDITORIAL WORK-STUDY SCHOLARSHIPS.

WHERE DO WE GO?

(continued from page F-29)

Recent engineering developments in the field of pollution control are encouraging. An experimental "dry" or caustic potato peeling process is being developed to decrease potato processing wastes that cause water pollution. A Japanese firm has discovered a means of converting garbage into sanitary, asphalt-coated blocks suitable for land reclamation and road beds. General Motors Corporation, responding to the demands of New York's Citizens for A Quieter City, Inc., has built a cleaner, quieter garbage truck.

Although businessmen have initiated much environmental reform, their continued efforts depend upon the establishment of uniform guidelines. Currently, conscientious businessmen who voluntarily invest in pollution control are penalized because their less scrupulous competition has no legal obligation to assume any of the high costs to reform.

Without enforcement of uniform industrial standards regarding the environment, responsible businessmen are bound to be trapped at a competitive disadvantage.

In a speech late last year, Henry Ford II described the businessman's predicament: "The company that sacrifices more and more short-run profit to keep up with constantly rising public expectations will soon find itself with no long run to worry about. On the other hand, the company that seeks to conserve its profit by minimizing its response to changing expectations will soon find itself in conflict with all publics on which its profits depend." Perhaps these are the reasons that the elite of business leadership, 270 chief executives polled by a Daniel Yankelovich, Inc., survey, voiced a strong desire for the federal government to step in, set the standards, regulate all activities pertaining to the environment, and help finance the job with tax incentives. However, such regulation would require more than hastily drafting a set of inadequate or unrealistic rules.

The task requires a new breed of thinkers, men and women who are trained to integrate and coordinate the fragmented interests of specialists into a unified whole, professionals who are responsible for checking out the consequences and possible unintentional by-products of technological development, and people who can establish reasonable guidelines for environmental reform.

The tactics of alarm and blame must be discarded. The excitement should subside. Work must begin. ■

Home Economics

You and Your Appearance

Environmental Education Problem — Use of Resources

Major Concept 4 — Energy from the sun is converted through plant photosynthesis into a form all living organisms can utilize for life processes.

Major Objective 4 — Analyzes the basic source of energy.

Generalization — All natural fibers are derivatives of plants.

Generalizations	Learning Experiences	Outcomes
Green plants are the basic source of clothing.	Display examples of linen, wool, leather, fur, silk, sailcloth, rayon and acetate. Group according to source - plant, animal, test tube. Trace origin.	Explains the origin of clothing.
Knowledge of fibers aid in making clothing decisions.	Investigate the relationship among sources and conversion to clothing. Choose an item of clothing and trace the conversion process from original source to final disposal.	Prepares consumer guidelines.

Home Economics

You and Your Surroundings

(an extension of you and your family)

Environmental Education Problem — Noise Abatement

Major Concept 5 — All living organisms interact among themselves and with their environment forming an intricate system called an ecosystem.

Major Objective 5 — Perceives the extent of noise pollution and the affect on personal health.

Generalization — The neighborhood and urban areas contribute to substantial noise pollution and affects the individual and the family.

Generalizations	Learning Experiences	Outcomes
The world consists of interdependent ecosystems.	Survey neighborhood and list sources of noise.	Identifies factors contributing to major noise problems.
	Discuss possible solutions to minimize the noise levels.	
	Discuss location of a home in relation to noise pollution.	
	Plan field trips to areas near the airport, freeways, industries, and construction sites.	
	Discuss the possible effects on health when homes are located near the above areas.	
	Discuss the newspaper article—"Mental Ills Linked to Plane Noise"	Identifies the relationship among noise level and health.
	Complete True and False Quiz.	

From: The Milwaukee Journal

Mental Ills Linked to Plane Noise

(c) The Manchester Guardian

London, England – Aircraft noise could be a final factor in bringing on mental illness. Dr. Colin Herridge, a consultant psychiatrist at the Springfield Hospital, South London, has found that admissions are significantly greater in the high decibel areas of Hounslow bordering on Heathrow Airport-London.

At the outpatient clinic of a hospital in Hounslow — within a noisy area in which he studied — Herridge finds that he has to suspend conversation with patients for 10 seconds every 2 minutes during the peak arrival time on Runway 1.

He finds that the noise, "like an aircraft coming in one window and going out of the other," makes him irritable and short with patients. Both doctor and patient build up aggression.

His two year survey — not based on his consultations — recorded that in noisy areas 26 people were admitted when the statistical expectation was 18.6. In areas of less noise admissions were 17 against an expected 24.

Men were relatively unaffected by noise but women over 45 were particularly a risk, and more so if they were not living with their husbands. Among women in this category there were 96 admissions — 21 more than expected.

Herridge's research is reported in "Noise," the British journal of audiology. Herridge is seeking money to carry out further research into the physiological effects of aircraft noise on people of differing psychological makeup.

He believes noise can affect people in three main ways: loss of sleep; the evocation of primeval fear by jet engines whose scream resembles a cry of distress or pain, and the unconscious expectation that, since takeoff and landing are the most dangerous moments in flight, an aircraft will crash.

Name_____

Date_____

Hour_____

NOISE ABATEMENT

Directions: If the statement is true, place "T" on the line.
If the statement is false, place "F" on the line.

_____ 1. The ear, like other organs of the body, such as the eye, can adapt to extremes of change more easily.

_____ 2. Noise is polluting our environment.

_____ 3. About one out of every ten Americans has hearing deficiencies.

_____ 4. Noise is necessary in a machine age.

_____ 5. Today's rock-and-roll fans may encounter hearing problems.

_____ 6. Noise is one of the main causes of the exodus from the city.

_____ 7. The noise level around our city is getting lower.

_____ 8. Noise pollution may be one of the factors contributing to the high rate of mental illness in the United States.

_____ 9. High-pitched tones are less annoying than low tones.

_____ 10. Beginning of hearing damage, if prolonged, starts at exposure of 95 decibels or over.

_____ 11. Prolonged noise cuts efficiency of workers.

_____ 12. Workers in airports have no special protection from the noise of the engines.

_____ 13. Loudness is the scientific term for the strength of sounds as they are heard by people.

_____ 14. Quieting mechanical noise is the only way to reduce the annoyance caused by the rising tide of noise.

_____ 15. 100-120 decibels causes painful sensation if it is heard continuously.

Home Economics

You and Your Surroundings

Environmental Education Problem — Recreation and Wildlife

Major Concept 6 — The quality of life is affected by geographic conditions and the distribution of natural resources.

Major Objective 6 — Analyzes the relationship between geographic conditions, natural resources and the quality of life.

Generalizations — The quality of life is affected by individual attitudes toward natural resources.

Generalizations	Learning Experiences	Outcomes
A clean and orderly home often adds to the pleasure.	Chart different life styles and the quality of life. Consider: 1. Organizational planning. 2. Sharing and cooperation. 3. Use of leisure time. 4. Food habits and consumption.	Illustrates examples for making surroundings comfortable and attractive within resource limitations.
Increased leisure time is available for all family members when home responsibilities are shared. The improvement of surroundings afford opportunities to develop creativity, management principles, and self-expression.	View transparency - Man Uses Plants - For Enjoyment. Initiate and complete a project demonstrating improvement in the quality of life in the home. Survey community for projects that can be improved by cooperative efforts. Chart and report findings.	Identifies role in maintaining pleasant and comfortable surroundings.
Observation of man's use/abuse of forest lands may generate ideas for curbing pollution.	Invite resource person to discuss use of camp site and park areas.	Describes human and wildlife dependency on land and water for survival.

E.E. Problem, Major Concept 6, Major Objective 6, and Generalization (Continued)

Generalizations	Learning Experiences	Outcomes
	View transparency--Man Uses Plants To Improve Wildlife Habitat.	
	Develop bulletin board or scrap books of wildlife interest - birds, leaves, trees, etc.	
	Complete puzzle on Plants and Flowers or Birds and Trees.	
	Read articles - "Show Other Side of Ecology Coin". "Housewife, Lawyer Stop U.S. From Devasting Woodlands".	
	Plan a week-end camping trip.	Plans a camping trip.

TEACHING AIDS

TEACHER REFERENCES

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KIT

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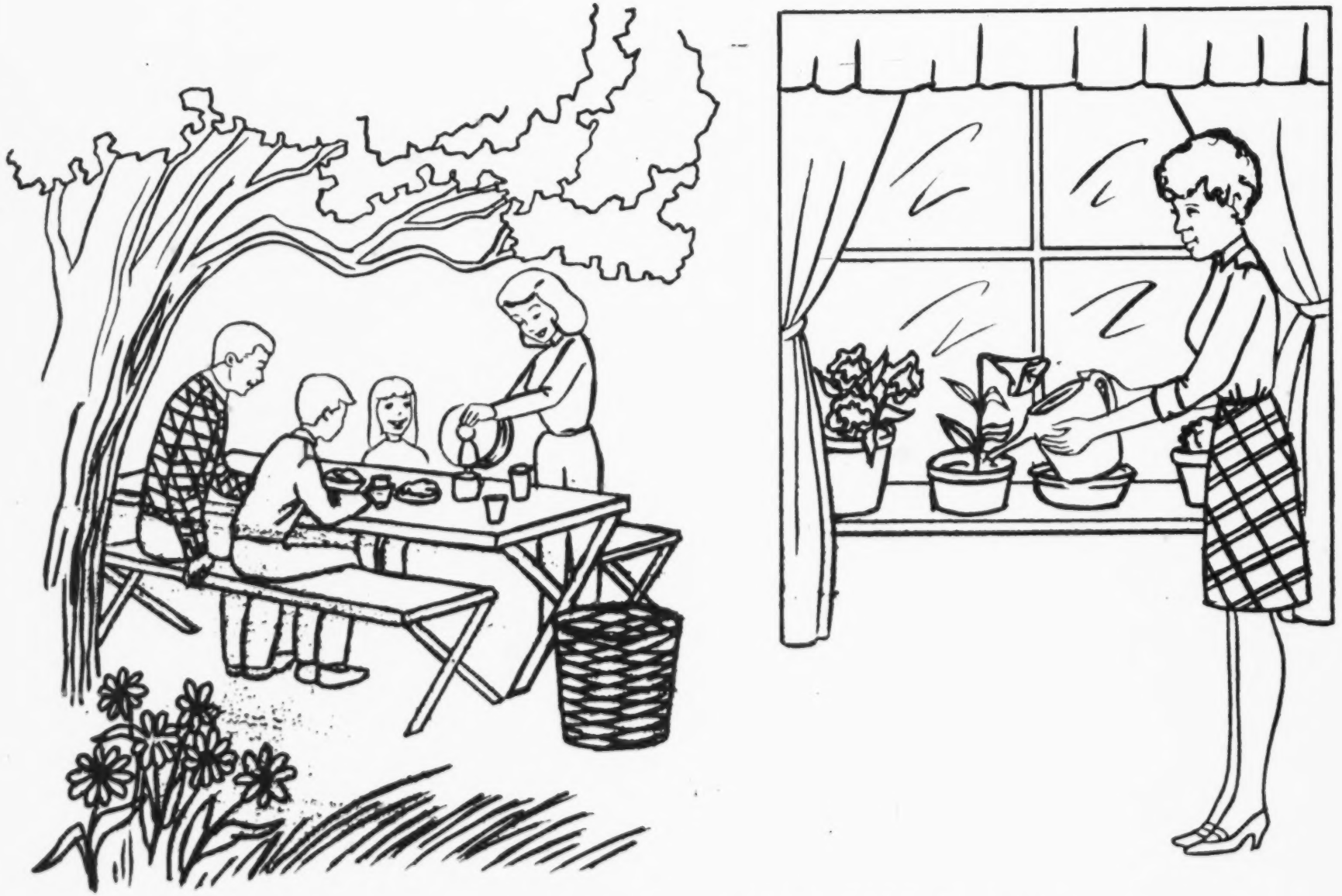

MAN USES PLANTS -- FOR ENJOYMENT

MAN USES PLANTS -- TO IMPROVE WILDLIFE HABITAT

A H D A H G M I L K W E E D G A B E Y S R
C O A M A E O T I C P M B A O L A S A U I
A L I A Y N R U L O A A E N L F R O M N C
T L S R P T N L Y R N L T D D A L R N F E
T Y Y Y O I I I G N S L H E E L E M O L T
A H H L I A N P E E Y O M L N F Y I I O R
I O E L N N G P B P R W O I R A E R T W I
L C L I S N G E L A O A O O O R D P A E L
F K L S E W L A O N S O N N D O R L N R L
C E O B T H O R O S E A F O I S Y O R L I
A R R A T E R T D Y W T L H N E E T A I D
R O M N I A Y I R D P A O B G I A U C L M
R H A C A T P E O N Y S W E O F O R R Y E
O Y R H A Y V I O L E T E E U E G N G D N
T A I I T G R U T D E E R T R R I I F A Z
P C G V N R I C E I J R Y E D N E P H F I
E I O E J A C K I N T H E P U L P I T F N
T N L K A S B P T I M O T H Y C O L U O N
U T D H R S E E C R E S S W R A T I L D I
N H A C D A E A A N I R I S I L A L I I A
I L S R Y E T E A N L E E K C I T Y P L R
A H A Y C O N E F L O W E R E L O I A E Y
S P U D R E D B U D S T P A N S Y B E M E

Joan Frey, Lucinda Riggenecker, Akron Central High, Akron, N.Y.

Make Use Of Plants

Hidden in the jungle of this puzzle are more than 70 names of plants, flowers, and trees. Names run every possible way.

Cover Yourself With Flowers

Hunt your tame and wild flowers hidden in the underbrush of this puzzle. You can find more than 50.

T D E L P H I N I U M E S O R H I B I S C U S B
E G R H C E T R O S B V M T M A C D P Q T M A C
L I S A A K T B I U Y U Z I N S R O X E O O A O
O E Y W F G U U R S M R T S I U O L E S O R B A
I P R T O U L D N L Z A O T L M C P Y C N N C E
V I I H L O I A L I L Y J I E T U K Z A T I Y I
C T N O T I P F D L A S T E R R S I T M E N D T
H R G R I D U O R I U C T S O A C I W E L G A O
R O E N R A A G P Y O E T I U T O U A L O L Q M
Y R L A G E V I T P H L O X W N L N P L V O U O
S S G A M L W Q S K Y Q U I V T F O R I I R T U
A O L O I C A R L Y U R T S X M N L E A S Y I N
N Q O E L T U D M V C E N I B M U L O C O V M T
T T X I I D X P I J C O C K S C O M B W B L U A
H V I T C O E T S O A T J I Q E A T L D E Y I I
E L N O A W Y N J R L Y R O T G V U A J L R N N
M A I V L O Z Z R H T U O O N M I H C U L R A L
U E A U I L N I C O A N S O S P L Y K M F T R A
M I S T L E T O E L D W L J M I T A E T L O E U
D A Y F L O W E R L L I T R A T S C Y K O D G R
T I Y A P Y A N K Y A M D H N C U I E I W A L E
U U D F O E C N H H R O O R O O A N D N E H M L
L T A L L X O I O O K Y O J E R I T S T R L N J
I V F E O O D N L C S P W T A V N H U E T I T A
L C F W C G W L Y K P P G V I E N P S U M A C S
A L O S I R I E T L U O O I O R I V A O S A N T
C V D O T L I R R X R P D A U T Z I N N I A I E
T S I T Y R P E A C H B L O S S O M L L S T M R
A T L E V X F O F M B L O O D R O O T V V Y T L
L A D Y S L I P P E R P C Y C L A M E N O O R G

Rick Gary, Marion Adams High, Sheridan, Ind.

Sing With The Birds

You will not need binoculars to hunt out the more than 30 birds in this puzzle. Look up and down, sideways, backward, and diagonally.

V H T S H R I K E E O L A S A
W U T T E R C B S R W O B P N
A L L A R K S R A A L O D A D
R C S T V R S M L V C N C R W
B R M D U C K S A E R D S R O
L S N U A R B G B N E L A O O
E E G P I G E O N S F M N W D
R A T C U C K O O B I R D L T
S G B W R Y A S W S N O P H H
T U N A C I L E P T C P I A R
U L C R A N E X V U H Q P W U
V L C T U V S Y C L B R E K S
O S D A U K N P R O U M R S H
R N B S R R E O O R T N P B L
I L M A K V K O W E S E I A B
O F A S O L C E S T E Z P L O
L L O D M A I L Y W X V I B B
E A G L E R H O S R Y W T E W
A M R P U B C Y Z E O Z U A H
R I Q S I L E L O N X B T R I
B N V R T N I M P T R M I S I
I G D W M X R X Y S V N O N E
R O B M Z Y I B O B O L I N K
K O I B A L A C A R D I N A L
W H I P O O R W I L L S A B C
C U C K B A P D O D O B I R D

Mary Ellen Keene, Oak Grove High, Bessemer, Ala.

Find Game Birds And Migrants

Here are more than 25 birds, including some of the longest range migrants we know.

C A N V A S B A C K L O X Y P E F P
O W O O L D U C K G P E R E I D B A
B O J E Q R R Y R O U R H T O F D S
O R Q U R U C R O W A W M V S G A S
B L A D I S A C O P C O E U A H D E
W T U N R C E I U R S O R I E A K N
H E S T T M A L L A R D G O S L R G
I P H H O U G N H I O C A W U I O E
T I O D A T E R A L N O N D O A T R
E N V N O U O L L D T C S A R T S P
T S E N I R C O O T A K E R G N E I
B F L E G K P O S V I I R E Q I T G
E V E L A E T N O X F E N L U P I E
M O R E R Y X U O R Y D R G E S H O
U Q S O U I P H E A S A N T O O W N
T F C O N I E N E B L U E G O O S E
R P Z R E V O L P N E D L O G T S F
Q U A I L M X R E T A W R A E H S E

Doug Yentzen, Jerry Roger, Carencro High School, Carencro, La.

Tally The Tall Trees

A H T Q T R N L G M I Y R R E B K C A H Q U I A
B I L M U T E S K R I N E Y T M U S H K T R R R
C C W M P I P A X E T E D R L L N M C K I J S L
G K A G E U S S L M E T W R T E M O R C E D A R
M O P I L H A L K D G F O E E R O C A B A N L K
L R W N O M D U B D E R O B I U F T L O C U S T
E V A K Y J U N I P E R D Y O A A U R A W P Y A
L N P G T C I N N A M O N A T L O A B K R E C A
T N C O T T O N W O O D E B P N N T P U E T A R
R G T H R E T C D P O P L A R G R I C P U P M N
Y N U K E N N E E R G R E V E T L E E N L F O K
M O N I B S R S K L M L A P N P E A R U A E R C
U R L M B E T F N O M E L T E L T E M S S I E S
L D A O U Q T N I L J R M T D I T M S R L T S U
B N W C R U L M U G O R T Q N T A L W D A A S T
E E A H M O R B M T T O Q U I P I N E O B I A P
R D S E E I D O O W S S A B L R B C E O O L R Y
R O O R V A P T J K M P S E T I M Y T W X O F L
Y D M R I I R R W I J O H E R F D C G F E N A A
Y O I Y L L K E M O M O K C R M A O U E L G S C
S H M U O M U E R T L B H H J P C S M E D A S U
R R T O E T A D K L I L K R W E Y T L B E M A E
J M K S R M O L Y T E K I M S R C C T L R S S M
T Y N A G O H A M I R O N W O O D O G W O O D I

Rebecca David, Friendsville Elementary School, Maryville, Tenn.

A S H Z T A E R O M A C Y S M O T E N A B P Q X A M
E L A P R I C O T X A Z M O L P S C U I N A D O I N
D O C O P F D D E A L C K M U G U M T R E E N V X P
E A K E R I A M S R S S E R P Y C T M A W U V A T E
N M B F D D B O X E L D E R Q E O B E X B E C A N C
M L E G O A I U F L X J A W H N L F G T D E L P P A
O D R I G T R T W T U N L A W Z V P D S E Y Z D E N
N C R K W V C M K G Y N X I I J J L F U L E R U A L
W E Y N O F H K U I V A R E L D U H G C J R P L P N
O S L Q O P R A S P E N M C L M N K A O C J L E H A
G E T A D O L H Q V P E B F O W I C I L C D U K A C
V S A E P C I F I R S D H E W G P O O Y M X M Z Z R
S D E K A O F R I X W N N N Q S E L T E G O Y G E M
T G J Q M T L N O G Y I F K L G R M V N K W N H L F
U H O H U T T D P O P L A R U U B E K O P Y J D I R
N B U I W O Z U O I K P E Y C N R H N H Q O L S T B
T L C C Z N I M Q O V T A X F G O Q H Z V E Z M Y X
S E I K M W K A Y J W L P N R W G H C F S L Q U R T
E M R O O O R A E Z P D G E V P X Y E O R P Q W R E
H O J R S O X D V E E H E A W C H D E N U A R B E Y
C N A Y B D C K I D A N T R Y R R E B L U M V U H S
S W B V J T M O L Q C R I U B Z I E M T P R S A C D
X U C E G N A R O P H Y S E M I L L M A S L A B Z F

Cindy Kreikemeier, St. Boniface School, West Point, Nebr.

Walk like an Indian through the puzzle forest to find the names of more than 50 trees in each puzzle. Not all are native American trees.

Chicago Tribune, July 18, 1971

[UPI Telephoto]

International Paper Co.'s efforts to save the red-cockaded woodpecker from extinction is example of corporate concern for conserving natural beauty. Company's foresters protect certain pine trees which the bird prefers for nesting.

Show Other Side of Ecology Coin

[United Press International]

Corporate concern for conserving the country's historic landmarks and natural beauty goes deeper than generally believed, a survey of large paper and home development companies shows.

Companies such as Union Camp Corp., International Paper Co., Boise Cascade Corp., City Investing Co. and AMREP Corp. spend millions to preserve the past and protect the present and future in practically every state in the United States.

The red-cockaded woodpecker, an elusive bird that builds a unique nest deep in Southern pine forests, was classified by the U. S. Fish & Wildlife Service in 1968 as "endangered."

International Paper foresters in South Carolina, Mississippi, Arkansas, Alabama, Texas and Georgia spend hundreds of hours every year trying to keep this woodpecker from going the way of the heath hen, the passenger pigeon and the Carolina parakeet.

Nesting Creates Problem

The nesting habit of the red-cockaded woodpecker creates the problem. It makes a home only in a mature pine tree which has been attacked by a fungus called "red heart."

Until the bird was placed on the "endangered" list, I. P. foresters would fell such trees. Today the company preserves nesting trees wherever found.

One far-reaching program is supported by Union Camp, a New Jersey based forest product company which owns or controls 1.7 million acres of woodlands in the richly historic states of Alabama, Florida, Georgia, North and South Carolina and Virginia. To establish what the company calls "heritage trails" open to the public, it has started an historical inventory of its woodlands.

Archeologists in Hawaii discovered a cave full of Polynesian artifacts on property being developed by Boise Cascade as a housing and recreational site. The company altered road and construction plans to accommodate the archeologists and donated funds to help scholars with their work.

Saves Archeological Site

At Rio Rancho Estates, in a suburb of Albuquerque, N. M., archeologists are sifting for clues to a 10,000-year-old mystery, the elusive Folsam Man of this continent's Stone Age. The site, which surrounds a prehistoric lake, was discovered accidentally when AMREP, a real estate development company, began laying out streets. The American Museum of Natural History and the University of New Mexico, helped by an AMREP grant and the company's decision to preserve the site for research, are digging in the area. They say they've already doubled the knowledge of the Folsam Man.

City Investing, which owns and operates historic Sterling Forest in Orange County N. Y. has reconstructed there a huge stone-encased furnace in which the great iron chain was forged in 1778. That was the chain New Yorkers stretched across the Hudson River between West Point and Constitution Island to blockade British ships. The furnace also produced cannon, cannon balls and anchors for use in the Revolutionary War.

Housewife, Lawyer Stop U.S. From 'Devastating' Woodlands

BY CLAYTON HICKERSON

Cooper (AP) — When a Mount Pleasant housewife and a Dallas lawyer combined their talents to stop the mighty U. S. Corps of Engineers in its bulldozer tracks, many persons were astounded.

Brought up on the premise that "you can't fight city hall" or buck big bureaucracies, most of the astounded citizenry just had not heard of the National Environmental Policy Act of 1969.

Neither, it would seem, had the Corps of Engineers which has had two projects stopped, one in Arkansas and one in Texas, in recent months because it failed to have made environmental impact studies required under the 1969 law.

Concerned over what they claim is "utter devastation" by the Corps in its stream channelization connected with Cooper Dam, Mrs. Peggy Amerson and Edward C. (Ned) Fritz, chairman of the Texas Committee on Natural Resources, went to federal court.

They asked U.S. Dist. Judge William Wayne Justice to restrain the Corps of Engineers from further work on the project. The judge issued a temporary injunction.

It was not so much the dam building they objected to, said the plaintiffs, but they could not understand why 75 miles or more of the Sulphur River had to be channelized, bulldozed, straightened and, as they put it, gashed up," its beauty destroyed.

The Corps of Engineers then awarded East Texas State University at Commerce, one of four towns due to get water from the project, a $60,643 contract for an environmental impact study.

The Corps, noting that Congress first authorized the Cooper project Aug. 3, 1955, believes Judge Justice in granting the injunction may have made the 1969 Environmental Police Act retroactive by 14 years.

The engineers want no part of the dam, they say, if the channelization work cannot be done, adding that either project alone would not be "economically feasible."

William Shell, chief of the environmental resources section, New Orleans district, U. S. Army Corps of Engineers, put it this way:

"The Cooper Dam will have significant effect in reducing flood stages on the South Sulphur River because the reservoir will be operated to regulate a flood to a maximum relief of 3000 cubic feet per second.

"However, levee and channel improvements are required to complement the reservoir in providing flood protection. On the Sulphur River, below the confluence of the North Sulphur and South Sulphur rivers, the levees and channel improvements provide essentially all the flood benefits because the effect of the reservoir below this point is minimal.

"Taken alone, neither the reservoir or the levees and channels would constitute a viable project."

Shell added, "Justification for doing the job is economics."

Since the U.S. Army Corps of Engineers was established, economics always had been a sufficient reason for a project.

But with the growing concern for the environment of man, with pollution a household word and with the preservation of wildlife becoming a mania with a great portion of the U.S. population, the Corps has suddenly found there is more than the "pork barrel."

Ned Fritz and Peggy Amerson and their friends believe that the Corps of Engineers "will undoubtedly file an environmental impact statement contending that all alternatives have been considered and that the project must proceed."

Fritz and Mrs. Amerson may well be wrong on that point, recent events indicate.

The Corps is working on a new mission and a new image. Before Judge Justice must rule on the future of Cooper Lake and Channelization Project, the Corps may well agree with the plaintiffs in the suit.

The science adviser to the Secretary of the Army, Dr. John Schaeffer, is leading what could be a major turnaround in environmental emphasis.

"In the '70s we have to go where the people are," Scheaffer said. "That's where the environmental problems are . . .not in the bayous."

Scheaffer's contention is that the Envir contention is that the Environmental Protection Agency and its 5,600 employes can set water quality standards, make construction grants and monitor compliance with the Corps. He said the best source for detailed planning, however is the Corps and its 30,000-member staff which can do detailed planning, construction supervision and operation of water treatment facilities.

An April 15 agreement between the Corps and the EPA, he said, sets out a relationship whereby the Corps of Engineers will act as a consultant to EPA on water pollution.

"If we really want to orient the Corps, we have to take money out of their hides and put it into new projects," Scheaffer said. He added, however, that "this leaves a problem with Congress and the pork barrel."

The "pork barrel" to which he referred is the old rivers and harbors projects of the Corps, always favored by members of Congress who want to point to a dam or a dredging project as indisputable evidence that the Congressman is looking out for his district.

It's always been a vote-getting measure that seldom failed. Those days may well be gone, Fritz believes, with the pressure of the environmentalists becoming more intense each day.

So with the Corps seeking a new image as the Great Anti-Pollution Agency, with the public's concern for the environment growing and with people like Fritz and Mrs. Amerson finding a platform in federal court, there would appear to be distinct doubt that channelization of the Sulphur River will come about—at least in this generation.

Cooper Dam? Should its ultimate fate depend on the decision of one federal judge or the U.S. Supreme Court, the ruling whichever way it goes will be most difficult and certain to be met with criticism.

Home Economics

You and Your Family

Environmental Education Problem -- Manipulation/Noise Abatement

Major Concept 7 -- All living organisms interact among themselves and with their environment forming an intricate system called an ecosystem.

Major Objective 7 -- Analyzes the relationship between noise pollution affect on personal health and family relations.

Generalization -- All family members require a quiet place to retreat within the home to minimize health problems due to noise.

Generalizations	Learning Experiences	Outcomes
Noise is a true environmental problem and can damage personal health and lower the quality of life.	Complete Noise Abatement vocabulary quiz. View floor plans of different homes. Choose one plan and rearrange room placement. Consider noise levels. Report to class. Invite resource person from Health Department or Hearing Aid Corp. to demonstrate use of audiometer.	Identifies sources of noise pollution in the home.
The behavior of individual family members affect all members of the family.	View pictures of disorganized families, family members playing electronic sound equipment, operating electrical home appliances, and lawn equipment. Discuss the noise levels present in each situation. Suggest ways to reduce noise levels.	Lists ways to decrease noise levels in the home.

E.E. Problem, Major Concept 7, Major Objective 7, and Generalization (Continued)

Generalizations	Learning Experiences	Outcomes
A poorly organized environment results in chaos and confusion.	Secure decibel scale. Establish a classroom situation encouraging students to pursue various home activities. (Games, operating audio-visual equipment, quiet activities, etc.)	
	Measure the noise level. Record and report to class.	
Cooperation and consideration of all persons involved adds to the quality of life.	Discuss the affect of noise upon individuals and the total environment, warning signals, and suggestions for coping with noise problems.	
	Chart agencies responsible for noise regulation.	Identifies environmental health agencies.

TEACHING AIDS

TEACHER RESOURCES

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Knudson, Vern; "Noise-A Major Health Problem"; PARENTS MAGAZINE; February, 1970; p.68.

"No Crowding For Large Family"; MILWAUKEE JOURNAL; July 18, 1971.

STUDENT RESOURCES

"Fight Noise With Plants"; MILWAUKEE JOURNAL; July 16, 1972; Home Section; Milwaukee Journal.

RESOURCE PERSONS

Industrial Arts Teacher, Health Teachers, Physicians and Architects.

FIELD TRIPS

Technical Services Division, Bureau of Consumer Protection and Environmental Health, City of Milwaukee Health Department. (Speakers and tours)

Name_____

Date_____

Hour_____

NOISE ABATEMENT

Vocabulary Quiz

Directions: Match definition with words by placing the letter on the line provided.

_____ 1. Eco-system

_____ 2. Interactions

_____ 3. Noise

_____ 4. Pitch

_____ 5. Sonic boom

_____ 6. Home design

_____ 7. Quality of Life

_____ 8. Decibel

A. Quality of tones

B. Standard of living

C. A system in which an interaction of living organisms and their environment exists

D. Unwanted sounds

E. Unit of measurement for loudness of sound

F. A sound resembling an explosion produced by an aircraft

G. Cross relationships

H. The study of the effects living things have on each other

I. Organization of space and equipment for satisfying living

Name_____

Date_____

Hour_____

NOISE ABATEMENT

Vocabulary Quiz

Directions: Match definition with words by placing the letter on the line provided.

C	1.	Eco-system	A. Quality of tones
G	2.	Interaction	B. Standard of living
D	3.	Noise	C. A system in which an interaction of living organisms and their environment exists
A	4.	Pitch	D. Unwanted sounds.
F	5.	Sonic boom	E. Unit of measurement for loudness of sound.
I	6.	Home design	F. A sound resembling an explosion produced by an aircraft.
B	7.	Quality of life	G. Cross relationships.
E	8.	Decibel	H. The study of the effects living things have on each other.
			I. Organization of space and equipment for satisfying living.

Homes Are Nice Places to Visit, but . . .

By the Associated Press

Is your house a place in which to enjoy living or to show off your possessions?

At least one distinguished architect, Charles Moore, Dean of the Yale University School of Art and Architecture, believes many persons select homes as "shrines" in which to contemplate and display the things they own. Their houses reflect the kind of thinking that places more importance on how the structures look to other people than whether they fit the family needs.

In view of the many inescapable pressures exerted on us in today's world, Moore feels that the pressure of possessions can and should be negated through the use of lower cost furniture and accessories.

"Anyone planning to buy a house," said Moore, "should think of the sense of place. A house, more than any other building, is entitled to be a place of specialness, to be the center of the world for the people living there, designed to take care of their images, visions, concerns and needs."

But isn't this a philosophy that can be applied only to private houses individually built? How does it fit in with his recent appointment as architectural consultant to a corporation that specializes in developments and new communities?

"My program is not the imposition of any arbitrary standards of taste but an attempt to find in the land, the neighbors and the inhabitants of each area the basis for planning and building which will make each place appropriate and unique."

Moore feels strongly that, although adults and children should be able to live together harmoniously, they must have areas to which they can retreat separately. For that reason, he often places the master bedroom and a private terrace at the opposite end of the house from the children's play area, study and bedrooms, permitting mother and dad to enjoy peace and quiet even if rock 'n' roll music is blaring away.

At Yale, Moore tries to share with students his respect for the influences of natural or geographic surroundings in conjunction with the life style of the intended occupants of a dwelling.

NATIONAL
ENQUIRER
LARGEST CIRCULATION OF ANY WEEKLY PAPER IN AMERICA
SEPTEMBER 5, 1971

University Medical School Professor Warns . . .

Increasing Level of Noise in Homes Is Breaking Up Families

By ALAN MARKFIELD and ROGER LANGLEY

Noise is breaking up families and driving spouses out of the house, a leading expert warns.

Dr. Jack C. Westman, professor of psychiatry at the University of Wisconsin Medical School, said the link between noise and family life deterioration is apparent in the direct role noise plays in generating tension between husbands and wives, parents and children.

"Everyday household noises tend to bring to the surface submerged tensions and can result in emotional outbursts and family friction," Dr. Westman told The ENQUIRER.

"Mothers yell at children, parents bicker between themselves."

The result is that housewives often either flee the home to find a job or retreat to the family doctor complaining that life at home is "overwhelming," he said. "Certainly many mothers seek a working life in order to avoid the tensions generated by child-rearing and to escape an unpleasant home atmosphere," he said.

"While the home has traditionally provided opportunities for relaxation and intimacy for family members, it is becoming less able to meet this because of noise.

"It is likely that human and machine-generated noise plays a significant role in robbing family living of pleasure.

"Fathers are probably more adversely affected by home noise levels because after working all day in noisy environments they many times come home in the evening to an even noisier home.

"Noise is a factor in every home at one time or another and a significant problem in many of them. We have sufficient knowledge at the present

NOISE MAKERS: The sound produced by an electric vacuum cleaner augmented by the background sound of a television set can cause a state of nervous tension, says Dr. Westman.

PSYCHIATRIST: Dr. Jack Westman says household noise is 'a major public health and ecological problem.'

time to identify noise in the home as a major public health and ecological problem."

Dr. Westman said a study conducted by the Environmental Design Dept. at Wisconsin University showed:

- Noise from kitchen appliances, television and other electronic entertainment sources increases physical and nervous tension.
- Household noise causes family bickering.
- Adults have significantly lower noise tolerance than children.

Dr. Westman said: "The sound levels produced by a garbage disposal unit, an electric mixer, dishwasher or blender can cause dilation of the pupils, drying of the mouth, muscular contraction and an increase in heart rate.

"The combination of any of these noises, augmented by the background sound of a television set, clearly can cause or aggravate a state of general nervous tension.

"We don't understand that noise makes us less efficient, less effective and more tense. Instead we look for scapegoats. We take our tensions out on each other."

Children, Dr. Westman said, can tolerate more sound than adults and the failure of families and home designers to understand this contributes to erosion of the family unit.

He said the generation gap is widened by "the high noise production of children and the low noise tolerance of their parents.

"Age clearly influences the reaction to sound so that young children are oblivious to the very sounds enjoyed by adolescents and deplored by parents who, for example, hear their teen-agers' stimulating music as disturbing noise."

Dr. Westman said modern home construction frequently adds to noise problems, especially in kitchens "often inadvertently designed to resemble miniature boiler factories" with smooth, hard surfaces that amplify rather than absorb noise.

When homes are built without areas where children can make noise and parents can seal themselves off to enjoy peace and quiet, the problem is magnified.

Dr. Westman said in conclusion, "American citizens deserve peace and quiet in family dwellings designed to maximize comfortable family living for both adults and children."

House of the Week

No Crowding for Large Family

When you've got a large family, you not only need lots of bedrooms, you also need plenty of space for family members to work, play or simply get away from each other.

This week's design fills that bill to a T. In addition to providing four bedrooms, the plans call for a living room, den and family room on the first floor and a sitting room on the second.

The contemporarily styled home was designed by Architect Samuel Paul of Jamaica, N. Y., and includes 2,540 square feet of living space plus a 528 square foot double garage and 480 square foot partial cellar.

The exterior of the home mixes brick veneer and vertical siding with wood casement windows. Overhanging roof and recessed entry add shadow accents to the horizontal lines.

Inside the double door entryway is a two story foyer which opens to all the major rooms on the first floor.

The kitchen is centered by a cooking island, which includes a breakfast counter for four. The kitchen is placed in such a way that it allows convenient access to a small dinette, formal dining room, an outdoor patio and a laundry-mud room.

The openness of three rooms — kitchen, dinette and family room — creates a large informal family center, all visually tied together with beamed ceiling.

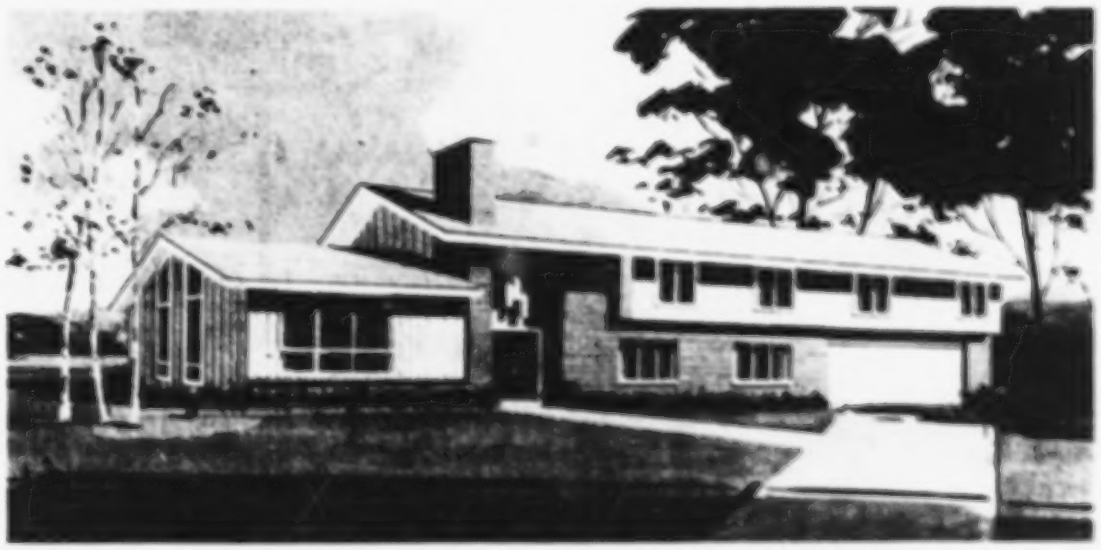
Three steps up to the left of the foyer is a 13 by 22 foot living room and connected den (or possible guest room). Living room features cathedral ceiling and massive fireplace.

The second floor features four bedrooms, two full bathrooms and numerous closets. A 13 by 17 foot master bedroom has it's own private sitting room and double walk-in closet.

The view from the second floor balcony is across the foyer and living room.

A partial basement is located beneath the living room-den area. In addition, there's plenty of storage room at the back of the garage.

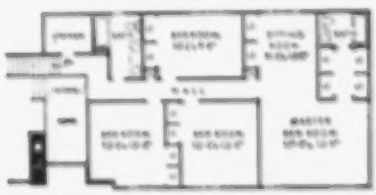
Taken as a whole, the home includes plenty of room for a large family. And, as a bonus, it's narrow enough to fit on either a suburban or city sized lot.



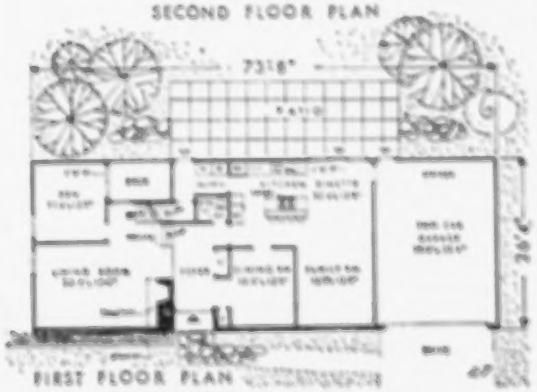
Brick veneer and vertical siding accent the exterior of this contemporarily styled four bedroom home. The overhanging roof and inset entryway add shadow accents to the horizontal design.

Cost Estimates

This house would cost about $40,900 to build in the metropolitan Milwaukee area, according to the American Appraisal Co., a Milwaukee based property valuation firm with worldwide operations. The cost does not include land, driveways, walks, terraces and patios, sewer and water laterals or optional features. Cost estimates for some other Wisconsin cities: Kenosha, $40,300; Racine, $40,000; Madison, $39,100; Eau Claire, $38,400; Green Bay, $38,100; Beloit, Oshkosh and Wisconsin Rapids, $37,800, and LaCrosse, $36,800.



SECOND FLOOR PLAN



FIRST FLOOR PLAN

Key features in the design are the raised living room and den; the kitchen, dinette and family room combination, and the second floor master suite with its own sitting room, bath and walk-in closets.

House of the Week

The Milwaukee Journal
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General Post Office
New York, N. Y. 10000

Enclosed is 50 cents. Please send me a copy of the plan for "House of the Week" L-7.

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Study Plan You Can Get Details

A study plan for this "House of the Week" design may be obtained by sending the coupon printed on this page with 50 cents to The Milwaukee Journal, Box 902, General Post Office, New York, N. Y. 10000.

The study plan offers elevations of the home, along with floor plans, and is scaled to one-eighth inch per foot. It will permit families to judge whether they want to build this home by obtaining bids on the work.

The study plan, obtained by sending in the coupon, also is useful for study by mortgage lenders to obtain rough ideas of budget, amount of down payment required, etc. This will help in determining whether working blueprints should be ordered.

Home Economics

You and Your Family

Environmental Education Problem -- Quality of Life

Major Concept 8 -- Cultural, economic, social and political factors influences societal attitudes and values toward the environment.

Major Objective 8 -- Analyzes the relationship between cultural, economics, social and political factors and the environment.

Generalization -- Reassessment of individual values may be necessary to improve the quality of life for all organisms.

Generalizations	Learning Experiences	Outcomes
Ecosystems are inter-dependent.	Review and define: values, family, ecosystem, life styles, wants, needs, interrelationship and quality of life. Read article -"Communities, Large and Small, Need People."	Describes the inter-dependency of ecosystems.
The family provides the means to meet fundamental human needs.	Explore the environmental connotations implied in: Records -"Everyday People" "People Who Need People" "What the World Needs Now" Quotation - "The greatest pollution in the world is in the hearts of men." Cartoons - (see attached copies)	Demonstrate an attitude of ecological conscience.
Values are transmitted primarily through the family unit.	Review the structure and importance of the family group.	

E.E. Problem, Major Concept 8, Major Objective 8, and Generalization (Continued)

Generalizations	Learning Experiences	Outcomes
Values are learned from experiences in the family, peer groups and the community.	Analyze the value systems operating in status-oriented, people-oriented and idea-oriented families. Compare life styles and relate to environmental crises.	Identifies consequences of individual actions.
Values influence decision making.	Discuss Senator G. A. Nelson's proposed constitutional amendment.	
Individual actions affect the total environment.	List the merits of the proposal. Discuss the effects on established societal, political and economic institutions. Complete attitudinal survey--Do You Think?	

TEACHING AIDS

TEACHER REFERENCES

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Communities, large and small, need people

the Community: Where do you fit in?

by Lynn Stiles

Try very hard for a moment to imagine that you live in another culture. Imagine that you had been born into one of the bands of Bushmen who inhabit southern Africa's harsh Kalahari desert today. You are very pretty, short and slender, with cropped curly hair bound with beads. You wear bands of beads around your throat and upper arms sometimes, too, and a cape of soft silky antelope hide. Until you reached puberty, you led a life with almost no responsibilities, following your family band as it migrated across the hot sandy waste in an endless search for food and fresh water. When you were about thirteen, you married. Now you spend long hours every day searching for nuts and roots and edible plants, while your husband hunts for springbok and kudu with the poison-tipped arrows you are not allowed to touch. You have learned how to make bowls and cooking pots from melon rinds, how to make a shelter from a hide, and a water bottle from an ostrich eggshell. But you care very little for possessions. The more you own, the more you have to carry. In fact, you would gladly give away your most prized possession if a friend [illegible]ired it. You would never allow feelings of anger or jea[illegible]y to show. You know that you are all too dependent on one another for survival to allow quarrels. You live in peace and trust and cooperation, resting each night shoulder to shoulder with the others around the fire with your back to the dark emptiness of the desert.

There is no question, in the Kalahari, where food comes from, where water comes from, where goods come from. They must be hunted and dug, searched for, and made by people themselves.

Your world is not so simple. Think—you own more things than any girl like you ever has before! You consume endless quantities of goods and of services. And most of the time you don't know where they came from or what happens to them when you're through.

Consider the most basic things. Where does the running water in your house come from? And where does it go when it runs down the drain? Where is the electricity generated for the lights and your hair dryer and your phonograph? Who grew the oranges for your morning juice? Where does your morning glass of milk come from? And where does your garbage go?

Does it really matter whether you know or not?

More and more people, especially young people, are deciding that the answer to that question is definitely yes. They feel a responsibility to know where the goods and services they rely on come from, and what the side effects are of their consumption.

Pollution from power and sewage plants. Damage to fish and wildlife populations from dams. Labor problems in the orange groves. Possible pesticides in the milk. Garbage disposal damage to land, air, and water. These are the kinds of problems people are now beginning to think about, instead of taking all goods and services for granted. They give a new meaning to the concept of community—a bigger meaning.

Every day in America there are more and more people—and less and less human contact. Many schools are overcrowded; hospitals, too. Traffic in cities, towns, and on highways is a problem.

Repairs are harder and harder to get. Personal services

who care or they decay and die...

become fewer and fewer. Public courtesy seems on the verge of disappearing.

The busy waitress slams down the wrong order and disappears. The harried salesgirl doesn't know whether what you want is in stock or not, but anyway she doesn't have time to look. The bus driver snarls at the passenger who asks directions. The motorist leans on his horn. The pedestrian drops one more gum wrapper into the cluttered gutter. And everyone complains.

They complain about the government. Inflation. Recession. Unions. Management. Television. Movies. The young. The old. Politicians. Women drivers. Liberals. Conservatives. Hippies. Cops. The military. The FBI. The "system." Somebody **must** be to blame!

Hardly a beautiful picture of America, is it? Luckily, there is another picture possible.

In New York City it is easy to imagine what would happen if the community services everyone takes for granted were to disappear. Because now and then they do disappear. One example was the strike of sanitation workers about two years ago. Garbage was soon piled in astonishing quantities on every sidewalk in New York.

It was then that many people were made aware for the first time of the enormous amount of refuse they personally generated in their households every day. Each week in New York City the sanitation department collects 120,000 tons of garbage. That's six million tons of garbage a year! Furthermore, it is estimated that in five years all of the available space for burying refuse will be used up.

Although this seems a problem which the average citizen is powerless to do anything about, it is not. So many people became concerned, that several movements were begun to recycle such items as paper, glass, tin, and aluminum. A few people are taking the trouble to sort and save their refuse and carry it to collection centers.

More people are thinking twice before they buy, rejecting products excessively packaged in too many layers of plastic and cardboard, and refusing to buy non-returnable bottles. These people are discovering the power of individual action. They are discovering that they can have an effect on the big, impersonal, remote system. And the same discovery is being made in many communities across our land. People who care can bring change.

A group of concerned women saves a beautiful stand of old trees destined to be cut down to make room for tennis courts, by creating a great deal of publicity and public protest.

A mother begins a neighborhood campaign to raise money to repair a broken-down playground. The movement grows so big that eventually she creates two brand-new playgrounds.

Suburbanites armed with brooms and paint cans travel into the inner-city to participate in a community clean up.

Mothers recognizing a teacher shortage become school volunteers to free teachers from extra duties and give them more time to teach.

Women take a course to qualify as volunteer smoke watchers and report air pollution violations throughout the city.

These are only five of the thousands and thousands of examples of people recognizing community problems and then doing something about them. They all took place in New York. Some believe that the rest of the country is not like New York and never will be. But the facts show that New York has the same problems as the rest of the country, just a little sooner.

This article, the last in a series for this year, was to be about community. But one community is not isolated or separated from the next community and the next woodlands and the next lake, and so on and on. It is only one part of a much larger ecological whole. Little by little we are realizing how much all men and all life are interrelated. City, country, suburb, slum, we are all part of the only world we have. We must survive in harmony with each (continued on page 74)

THE COMMUNITY

(continued from page 61)

other and with the natural world on which we depend, or we will not survive. This is the basic issue we face.

What can you do? Begin by learning how your community is linked to the world. Find the answers to these questions.

Where does your water come from?
Where is your power generated?
Where does your sewage go?
How is your garbage disposed of?

Why not take a trip to see a power plant or a sewage treatment center? It may not sound glamorous, but it would certainly be eye-opening. Little by little you will begin to see your link with the world of nature more clearly.

And you will see how necessary it is for us to find ways to co-exist with nature, as we must learn to co-exist with man. In the Kalahari Desert it is easy to see how important this is; it is harder for you to see, but no less true.

From a nationwide election. To a state park bill. To a city sewer bond issue. To a garden club tree planting. To you. Everything and everyone plays his part. You play yours for better or for worse, whether you are an activist or simply live your concern for a better community in a quiet day-to-day way. Make it a lifetime project. ■

Name_____

Date_____

Hour_____

DO YOU THINK?

Directions: Place a check under the heading that best describes your feelings.

Do you think:	Yes	No	Uncertain
1. that the citizenry should rely on technology to solve the environmental crises?			
2. it's the duty of the Federal Government to maintain environmental balance?			
3. plants and animals exist primarily for man's use and enjoyment?			
4. that you affect the environment?			
5. that all states should follow Massachusetts by amending the State Constitution to include the right of a citizen to an unpolluted environment?			
6. the tax deduction for dependent children should be eliminated?			
7. we have become a "throw away" society?			
8. the profit motive in our society (desire for individual economic gain) needs to be changed?			
9. a family should have as many children as they wish?			
10. American beliefs and values have been a basic cause of our environmental problems?			
11. your church should become involved in social problems?			
12. the conservation and ecology movements are necessary?			
13. you should become involved in community action groups?			

Must Freedom Die for Man to Live?

By Victor Cohn
Washington Post Service

Free man as we have known him, or imagined him, is dying.

Society, using a new technology of behavior, must instead design and control him.

This will leave man "free" to act heedlessly in a better world — not an Orwellian "1984," but a meaningful world without war, violence or overpopulation.

That arresting theory is expressed by one of the nation's foremost behavioral psychologists, Harvard professor B. F. Skinner, in his new book "Beyond Freedom and Dignity."

In a manifesto likely to arouse anger and argument throughout the world, Skinner says man must give up his claims to "individual freedom and dignity" and surrender the basic rights of "life, liberty and the pursuit of happiness" to ensure the survival of his culture.

B. F. Skinner

"Basic Rights Irrelevant"

Such "basic rights" are increasingly irrelevant or harmful to development of a future culture in which men of reason would want to live, Skinner says. Society has failed man badly by permitting him too much of the wrong kind of freedom, he says.

In fact, "it is not difficult to demonstrate a connection between the unlimited right of the individual to pursue happiness and the catastrophes threatened by unchecked breeding, the unrestrained affluence that exhausts resources and pollutes the environment, and the imminence of nuclear war," according to Skinner.

> *"We have not yet seen what man can make of man."*
>
> —B. F. Skinner

"What we need is more control, not less" or "some other culture" will possess the future, he says.

In the future Skinner seeks, both behavioral and genetic engineering would be part of a design to change man's character. Man would change the genetic structure they inherit "with a sharper eye to the consequences," and introduce cultural practices to mold society.

Important Argument

The argument is important because Skinner is important. He has taught at Harvard since 1948 and has written "The Behavior of Organisms," "Walden Two," and "The Science of Human Behavior." He counts as scientist, technologist and social prophet.

Some will sharply criticize his new statements, but they will first listen.

Skinner mocks the deeply implanted behavioral view of the "autonomous man of traditional theory," endowed as

Turn to Skinner, page 2, col. 4

Skinner
Psychologist Urges 'Death' of Free Man

From page 1

entitled to "individual freedom and dignity."

He says in essence that although the traditional autonomous man "is held responsible for his conduct and given credit for his achievements . . . a scientific analysis shifts both the responsibility and the achievement to the environment."

Science has not lessened that "behavior is shaped and maintained by its consequences," Skinner says. This means that "we can manipulate" man's environment. Man's genetic endowment can be changed only slowly, but changes in the individual's environment have "quick and dramatic results."

Therefore, by developing a "technology of behavior" — a technology only in its infancy and for which Skinner cannot yet draw a detailed blueprint — "it should be possible to design a world in which behavior likely to be punished seldom or never occurs," he says.

Desirable actions would be reinforced in this society, Skinner says. Only nothing will would be encouraged by the controllers.

Though Skinner offers no plan he does suggest a beginning.

He believes an intensive study should be made of man, his needs and his society in order to see which actions should be reinforced and which should be continued out of his behavior.

To those who say controlled man would be simply a victim, Skinner answers: There have always been the controlled and the controllers. Man is now controlled and in fact has reached a dead end in the struggle to shape his destiny.

To Skinner, the aggressiveness and hostility of much of youth is due to "defective social environment." To refuse to control is "to leave control not to the person himself" but to the environment.

"The problem," he says, "is to free man not from control but from certain kinds of control . . . to make the social environment as free as possible of aversive stimuli."

Skinner does not guarantee a utopia, but frankly he seeks it. In his utopia, people would learn to live together without force and quarreling. They would produce the goods they need by consuming no more than a reasonable part of the world's resources. They would have no more children than they can raise decently.

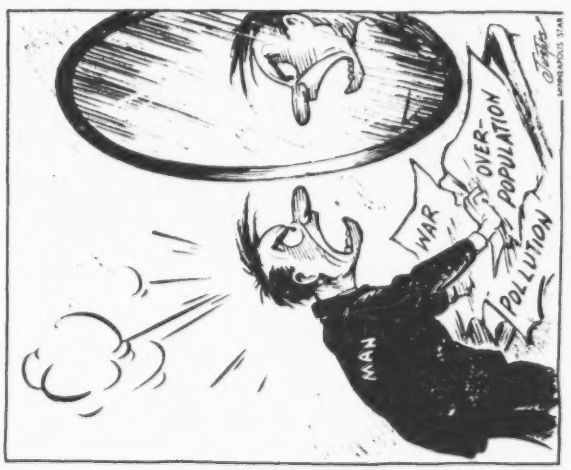
Most attempts so far to create utopias have been ignominious failures, he concedes. But he notes that "unplanned and imperfect cultures have failed, too," and concludes that "we have not yet seen what man can make of man."

That Helpless Feeling

By BILL McCLANAHAN
Dallas News Staff Cartoonist

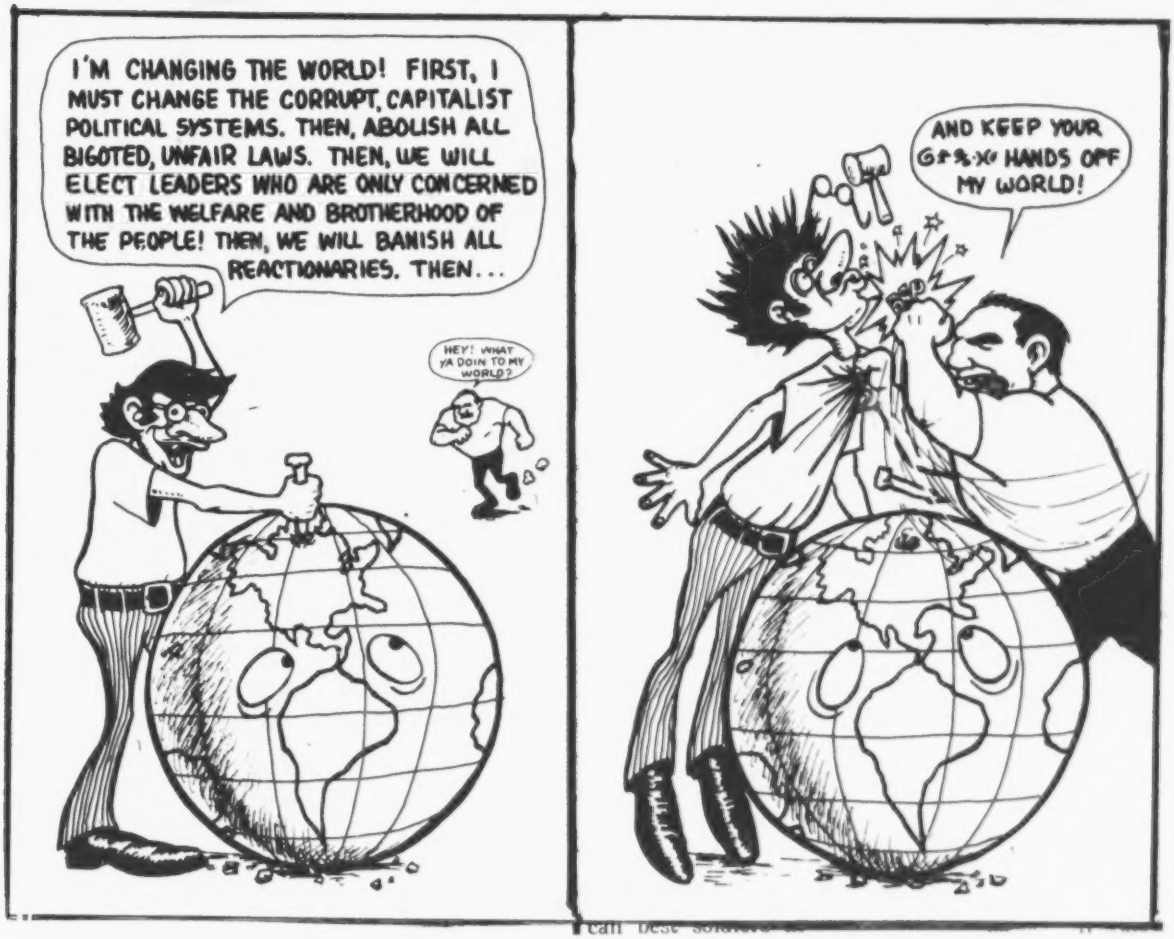
Do you ever get the feeling that your little world is falling apart.....
----and there's absolutely nothing you can do to hold it together?
BILL McCLANAHAN

27



Justus in The Minneapolis Star

"Ah-ha! Now I See the Enemy"


I'M CHANGING THE WORLD! FIRST, I MUST CHANGE THE CORRUPT, CAPITALIST POLITICAL SYSTEMS. THEN, ABOLISH ALL BIGOTED, UNFAIR LAWS. THEN, WE WILL ELECT LEADERS WHO ARE ONLY CONCERNED WITH THE WELFARE AND BROTHERHOOD OF THE PEOPLE! THEN, WE WILL BANISH ALL REACTIONARIES. THEN...
HEY! WHAT YA DOIN TO MY WORLD?
AND KEEP YOUR G#%·X@ HANDS OFF MY WORLD!

ADDENDUM TO HOME ECONOMICS

CURRICULUM GUIDES

ENVIRONMENTAL EDUCATION

(WORK COPY)

FAMILY LIVING

Department of Elementary and Secondary Education

Division of Curriculum and Instruction

Milwaukee Public Schools

1972

Home Economics

Family Living

Environmental Education Problem -- Family Planning

Major Concept 15 -- Environmental factors are limiting on the number of organisms the environment can adequately support.

Major Objective 15 -- Perceives the relationship among individual action and significant environmental alterations.

Generalization -- Resources are a limiting environmental factor.

Generalizations	Learning Experiences	Outcomes
All living organisms need food, water, air, shelter and space.	Define: carrying capacity.	Appraises societal and technological changes affecting family living and the quality of life.
	View transparency -"It Took From--For Earth's Population To Reach" Discuss implications.	
Man's need for basic survival components increases as the population increases.	Read-Environmental Crises Due to Over Population.	
	Discuss population concentration and environmental problems.	
The family, a fundamental unit of society, provides the nucleus to meet basic needs.	Clip newspaper articles related to population and environmental problems.	

TEACHING AIDS

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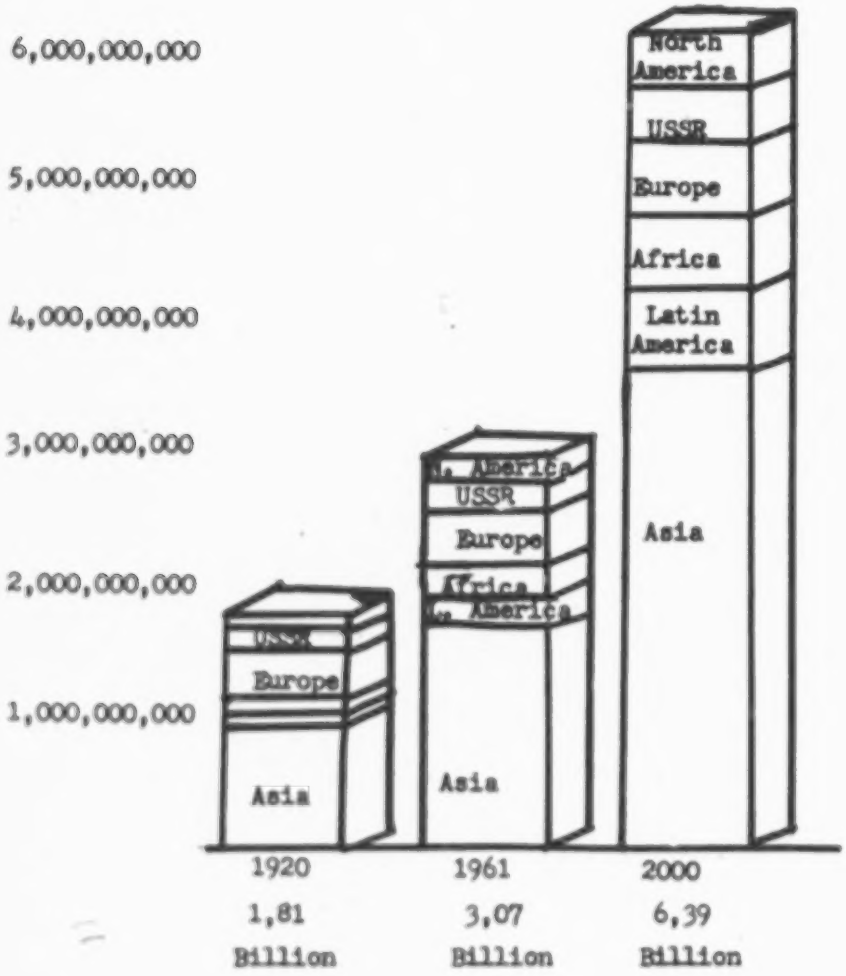
FURTHER INFORMATION

Population Reference Bureau
1755 Massachusett Avenue, N.W.
Washington, D.C. 20036

Wisconsin Zero Population Growth
Box 2062
Madison, Wisconsin 53701

Wisconsin Citizens for Family Planning
5501 Varsity Hall
Madison, Wisconsin 53705

WORLD POPULATION AND PROJECTION FOR YEAR 2000



IT TOOK FROM	FOR EARTH'S POPULATION TO REACH
The beginning of man to the Neolithic age	7,990,000 years to reach 10 million
Neolithic to the Birth of Christ	10,000 years to reach 300 million
Birth of Christ to the days of Columbus	1,500 years to reach 500 million
Columbus to 1850 A.D.	350 years to reach 1 BILLION
1850 to 1925 A.D.	75 years to reach 2 BILLION
1925 to 1962 A.D.	37 years to reach 3 BILLION
and will take to 1975	13 years to reach 4 BILLION
and from there to 1982	7 years to reach 5 BILLION

A Better World for Fewer Children

by GEORGE WALD

None of the things that now most need to be done for our country and for the world have much chance of working unless coupled with the control of population. By present indications our present population of 3.5 billions will have doubled by the end of this century. Long before that, we can expect famine on an unprecedented scale in many parts of the world.

Yet this in itself is not the heart of the problem. If it were, one would have some small reason for optimism; for in the last decade the world's food supplies have increased more rapidly than its population.

The concept that food is the primary problem is a prevalent and dangerous misunderstanding. It implies that the main point of the human enterprise from now on will be to see how many persons can be kept alive on the surface of the earth. A distinguished demographer recently estimated that with what he calls "proper management" we could support a world population of forty billions.

Of course, under those conditions people would not eat meat; there would be no place for cows, sheep, or pigs in such a world. This would be an altogether bankrupt view of the human enterprise. Humanity still has a chance at creating an ever wider, richer, and more meaningful culture. This would degrade it to simple production—a meaningless venture in simple multiplication. Even that, however well managed, must come to an end, as the potential resources of the planet become insufficient to feed further numbers of people.

The point then is not how many people one can feed on this planet, but what population can best fulfill human potentialities. One is interested not in the quantity but in the quality of human life. From that point of view the world is probably already over-populated. China and India were once great cultures, enormously creative in the sciences, the visual arts, and literature; but those aspects of Indian and Chinese culture declined centuries ago for reasons associated, I think, with overpopulation.

The Western world also is becoming crowded; I do not think it irrelevant that the quality of our production in the arts has declined greatly in the last century or two. Western science is flourishing, but the productivity of the individual scientist is nothing like what it was up to a century ago. It would take four to six top scientists of the present generation to approach in productivity, scope, and quality the contributions of Charles Darwin, Hermann von Helmholtz, or James Clerk Maxwell. Those men had no labor-saving devices, so far as I know not even secretaries—no dictaphones, microfilm, computerized information, retrieval services, and the like. They did, however, have peace and quiet, the chance to walk through green fields, along quiet rivers, and to find relief from all the crowding, noise, filth, and endless distractions of modern urban life.

A second profound misunderstanding has plagued many earlier discussions of the population problem. This is the widely prevalent view that the poor are over-reproducing, the well-to-do are under-reproducing, and the quality of the human race is hence going downhill. Quite apart from the naive assumption that the economically poor are necessarily also genetically inferior, there are other, almost as serious troubles with this view of the problem.

We are beginning to realize now that it is precisely the well-to-do and their children who make the most trouble—who are at once the biggest consumers and the biggest polluters. That is true individually, and has its national aspects. It is claimed by reliable sources that an American child uses fifty times as much of the world's resources as an Indian child. Our country,

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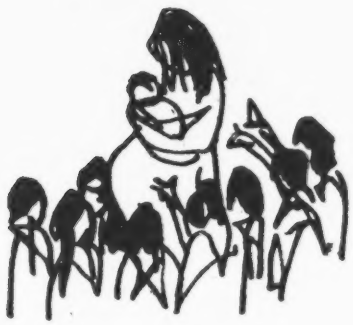

which contains only about six per cent of the world's population, uses about forty per cent of the world's resources, and accounts for about fifty per cent of the world's industrial pollution.

So it is essential that we bring world population under control, not only to keep it from increasing further, but if possible cut it down from its present level. That won't be easy or altogether pleasant. Indeed, it will be so difficult that we would be well advised to choose any viable alternative. But there is none. It is that or disaster. We are not being *asked*, but *told* to control world population. That is now our only chance of a meaningful survival. And whatever is done now must be done quickly, not only because the population is increasing so explosively, but because as one consequence the quality of human life has already been eroded. We must be aware of the danger that persons of future generations, even more out of contact than we with the potentialities of a less crowded world, will have lost a wider human view, and will have become unable to help themselves. In that sense we may be the last generation that can save humanity.

So what to do? First, as rapidly as possible make convenient, safe, and cheap—I would rather say free—means of birth control universally available. That, however, will certainly not be enough. I think we must as rapidly as possible make convenient, safe, altogether legal, and cheap—again I would rather say free—means of abortion universally available.

I hope for the early advent of a safe and efficient abortion pill. There are recent reports of encouraging work in this direction, from England and Sweden, with one of the prostaglandins. I think the condition we must try to achieve everywhere and as rapidly as possible is to see to it that nowhere in the world need a woman have an unwanted child. Having got there, we can take stock and see whether that is yet enough. Very likely not; and then we shall have to go on with a variety of other reasonable procedures. We might begin some of those procedures much sooner: for example, legislate tax discouragements rather than incentives for bearing children, particularly beyond the first two.

Many people still have trouble with the thought of legalized abortion. Of course the Roman Catholic Church is deeply opposed to it. Lately it has at least considered accepting contraception, before officially deciding against it. It seems to me likely that having once opened the question of contraception, it will now prove very difficult to close.

Abortion, however, is not only rejected by the Catholic hierarchy, but apparently also by large numbers of Catholic laymen. They regard abortion as highly immoral, indeed a form of murder.

It is difficult for me to appreciate the morality of that position in view of the present condition of the world's children. If we were in fact taking proper care of children all over the world, raising them with enough food and shelter and clothing so that they had the chance to fulfill their genetic potentialities, then we might have the privilege of feeling that every embryo should be born. As it is, however, the world's population is now mainly held down through infant mortality. What is killing those children is war, famine, disease, and poverty. That is our present condition, one in which we turn the Four Horsemen of the Apocalypse loose upon the children of the earth. Surely we can and must do better than that.

It is not as though we were asked to introduce abortion into a world that is not already practicing it. It is in fact practiced very widely, not only in those few nations where it is legal, but in others where it is illegal, and frowned upon by tradition and religion. Indeed, some recent statistics seem to show that it is particularly prevalent in a number of Roman Catholic countries, in which other means of birth control are not available.

Data on the extent of illegal abortion are difficult

to obtain and not altogether reliable. However, a recent study estimates that in France there is one abortion for each live birth; that in Latin America as a whole there is one abortion for every two live births; and that in Uruguay, there are three abortions to each live birth. (Alice S. Rossi, U.S. Public Health Service, writing in *Dissent*, July-August, 1969).

In numbers of underdeveloped countries, through ignorance, poverty, and the low state of technology, abortion is the principal method of birth control. A lot of this happens under brutal circumstances. The women do it to themselves, or to one another, or at best with the help of some self-taught midwife. All of them suffer, and many of them die. It is one of the penalties of poverty. What goes as morality, in this as in so many other things, sits more lightly on the well-to-do. The poor must bear it in suffering and terror, and at times must pay for it with their lives.

It is precisely a high concern for human life, and most of all for children and what becomes of them, that makes me believe that we must achieve as rapidly as possible universally available, and preferably free, birth control and abortion. Being born unwanted is no favor to any child. Being born to hunger, want, disease, and the ravages of total war is no favor to any child. We need to make a world in which fewer children are born, and in which we take better care of all of them.

So that is my program: *a better world for fewer children.*

Herblock in The Washington Post

"It says here we're winning the space race"

ADDENDUM TO HOME ECONOMICS

CURRICULUM GUIDES

ENVIRONMENTAL EDUCATION

(WORK COPY)

FAMILY MANAGEMENT

Department of Elementary and Secondary Education

Division of Curriculum and Instruction

Milwaukee Public Schools

1972

Home Economics

Family Management

Environmental Education Problem -- Management of Resources

Major Concept 16 -- Man has the ability to manage, manipulate and change his environment

Major Objective 16 -- Analyzes the interaction among environmental factors and decision making.

Generalisation -- Pollution is an influence on the management of resources.

Generalisations	Learning Experiences	Outcomes
Societal conditions influence stability and/or change in availability and use of resources.	Compare environmental conditions in rural and urban areas. Chart the findings.	Analyzes societal factors influencing stability and/or change in availability and use of resources.
Societal demands and expectations present individual and family management opportunities and responsibilities.	Debate the following topics: --reusing 'vs' recycling --technological achievements 'vs' health --population 'vs' natural resources --cars 'vs' power shortage	Analyzes individual and familial management opportunities and responsibilities.
Individuals and families have the responsibility to provide for their own welfare beyond the basic expectations and protection provided by society.	Discuss the advantages and disadvantages of sharing resources: --car pool --bicycle 'vs' second car --electric or gas-powered lawn and gardening tools --snow-blowers Complete self evaluation on ecological practices.	Evaluates family protection and welfare beyond basic societal expectations.

E.E. Problem, Major Concept 16, Major Objective 16 and Generalization (Continued)

Generalization	Learning Experiences	Outcomes
Individual and family productivity is influenced by available resources, goods and services.	Compare the cost and use of human resources in: --small home repairs completed by agency service/family member --commercial products --commercially-produced clothing --individually-created clothing --convenience foods --foods preserved at home	Appraises the relationship between family productivity and consumption of goods and services.
Interaction of decision making factors affects and influence managerial behavior.	List consumer practices considered to be ecologically-sound. --returnable bottles 'vs' cans --steel cans 'vs' aluminum cans --paper cartons 'vs' plastic containers --plastic cartons 'vs' glass containers	Identifies consumer products and practices harmful to the environment. Discovers the limited quantity of natural resources.
Advantages and disadvantages are usually inherent in selecting alternatives.	Research the feasibility of: --furniture recycling --clothing recycling center --bottle and can recycling centers Develop a paper based on the ecological principles — "For Every Gain There is A Loss."	Summarizes plan for personal education, action and involvement in preserving natural resources and protecting the environment.
The availability of resources affect the range of choices.	Present a youth/adult forum — "How Can We Be Effective If We Dare To Care?"	

TEACHING AIDS

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"Soaps, Detergents and The Environment"

The Soap and Detergent Association
Information Applications, Inc.
Rochester, New York

"The Water Pollution Hang-Up"; (Teachers' guide and student pamphlets are available)

Consumer Information Services
Department 703
Sears, Roebuck and Company
303 East Ohio Street
Chicago, Illinois 60611

STUDENT REFERENCES

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Before You Buy

Breweries' Recycling Programs Pay Off

By Margaret Dana
Consumer Consultant

Many consumers are getting used to hearing bad news nearly every day about what's happening to our environment. They are told about air, water and noise pollution and the damaging impact on our lives. The most recent bad news has been concerned with what it will cost consumers and taxpayers to clean up this pollution.

This week I am reporting some of the good news. I refer to programs operated by industry which do two things at the same time — decrease solid waste and the pollution it makes and decrease that horrendous cost of waste removal which otherwise would fall to the public.

There are many such items in my files, but I am especially impressed by two examples.

One is the story of what a beer company — the Adolph Coors Company of Colorado — is doing in the 11 states it serves to rescue and recycle its aluminum beer cans.

Millions of Cans

In the first three months of 1972 this company collected 5,798,583 cans in its aluminum recycling program. That's double the amount collected during the same months of 1971.

Since it started its "Cash for Cans" in Jan., 1970, Coors has collected 30 million pounds of aluminum for recycling, equivalent to around 707 million beer cans. And it has paid out to civic organizations, charities, educational projects, etc., $2,945,878.

Margaret Dana

All the Coors distributors (in Arizona, California, Colorado, Idaho, Kansas, Nevada, New Mexico, Oklahoma, Texas, Utah and Wyoming) pay a dime a pound for clean aluminum containers. And they accept not just Coors cans but all other aluminum cans as well.

It is necessary to separate aluminum cans from non-aluminum cans, but it is easy to identify the aluminum. The easiest way is to check for a side seam in the can, as aluminum cans have no side seam. Also, the bottoms of aluminum cans are slightly rounded or cupped rather than flat.

For Charities

And since aluminum is not magnetic, you can use a magnet to separate nonaluminum cans.

The cans are recycled and new research has begun to find useful products which can be made of that recovered aluminum. A handsome solid aluminum ash tray is one of those new end products developed.

Even more heartening is the report of what the money paid for cans or bottles is doing for the communities and individuals of those 11 states.

For example, in Long Beach, Calif., the cash for cans drive brought in $173.20 for the cerebral palsy organization; in Taos, N. M., the Youth Workshop collected more than $1,000 for aluminum cans; in Kansas City the recycling program has provided training and new skills for the mentally retarded; in Reno, Nev., the cash for cans bought braille watches for four visually handicapped children; in Denver, Colo., the Boys Ranch project benefited by $646 from the aluminum collection. And so it goes.

The important thing about this movement is that it is one in which we all can help. Although the Coors program is limited to 11 states, other companies in other states are developing similar plans.

Coca-Cola in New York has a very active bottle collection and recycling program, paying two cents for each Coca-Cola bottle and one cent for any others.

[In Milwaukee, the Miller Brewing Co. and its subdivisions pay one cent apiece for bottles and one-half cent for cans, and they will accept all kinds of bottles and cans, uncleaned and uncrushed.]

Questions?

For some answers to many questions about how to go about recycling, and reasons why we should, you may send a request to me for a copy of "Litter, Solid Waste and Recycling," a booklet prepared by the Recycling Department of Adolph Coors Co.

A second good news item on curbing solid waste comes from the Georgia-Pacific Co., which makes building products, pulp and paper, etc. They report that a total of 2.37 million tons of wood fiber, most of which was once burned or used as land fill, will be recycled by their company in 1972.

This is an increase of 334,500 tons over the last peak figure in 1971. And this doesn't even include the creative things they are doing with sawdust, bark, and waste fibers to cut down land and air pollution.

These are only a few of the responsible companies fighting pollution without cost to you.

United Feature Syndicate

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ADDENDUM TO HOME ECONOMICS

CURRICULUM GUIDES

ENVIRONMENTAL EDUCATION

(WORK COPY)

CHILD DEVELOPMENT

Developed under the Provisions of
ESEA TITLE III, ENVIRONMENTAL EDUCATION PROGRAM

Department of Elementary and Secondary Education

Division of Curriculum and Instruction

Milwaukee Public Schools

1972

Home Economics

Child Development

Environmental Education Problem -- Quality of Life

Major Concept 11 -- Cultural, economic, social and political factors determines status of man's values and attitudes toward his environment.

Major Objective 11 -- Comprehends the transmission process of values and goals through the family unit.

Generalization -- The family is recognized as the basic unit responsible for the welfare of children.

Generalizations	Learning Experiences	Outcomes
In all known societies, the family unit assumes the functions of child rearing, regulation of behavior and economic support.	Survey individual attitudes toward the care of children.	Concludes that the family is the basic unit of society responsible for the development of children.
Cultural patterns are transmitted primarily through the family.	Brainstorm cultural patterns present in immediate community. Choose one cultural pattern and relate to the environment.	Identifies the relationship among cultural patterns and family customs.
Societal and individual values provide directions for behavior and meaning of life.	Review case studies or observe family siblings in various areas of the city. Compare similarities and differences due to environmental factors.	Appraises individual actions and values of present life styles.
A reciprocal relationship exists between the family and the environment.		Appraises the interdependence between the family and the environment.

E.E. Problem, Major Concept 11, Major Objective 11, and Generalization (Continued)

Generalizations	Learning Experience	Outcomes
Family living and individual development is sensitive to environment influences.	Discuss the effects of noise on health. Discuss the effects of noise on parents and relationship with off-springs.	Interprets the environmental crises and its effects on growth and development of children.
The human organism is an open dynamic system constantly behaving in response to stimulation and affecting changes in the environment.	Investigate the unwanted by-products of the "Good Life". Consider responses to the following questions: 1. Where do they come from? 2. What effect do they have on the environment? 3. What is the process of final disposal? Choose one item contributing to pollution and trace the disposal process.	Discovers the relationship among individual reaction to stimuli and changes in the environment.
Individual behavior is influenced by attitudes, values, experiences and interpretations of the environment.	Develop guidelines for rearing children in an ecological household.	Compares attitudes, values, and experiences to understanding environmental problems.

ADDENDUM TO HOME ECONOMICS

CURRICULUM GUIDES

ENVIRONMENTAL EDUCATION

(WORK COPY)

FOODS AND NUTRITION

Department of Elementary and Secondary Education

Division of Curriculum and Instruction

Milwaukee Public Schools

1972

Home Economics

Foods and Nutrition

Environmental Education Problem — Use of Resources and Convenience Foods

Major Concept 12 — Transportation, economic conditions, population growth and increased leisure time influence changes in centers of population density.

Major Objective 12 — Perceives societal facotrs involved in the production and use of convenience foods.

Generalization — A knowledge of societal factors involved in the production of convenience foods may result in the increased use of human resources.

Generalizations	Learning Experiences	Outcomes
Technological growth and current sociological trends promote developments in food processing, an acceptance of a variety of food forms, and changes in patterns of consumption	Trace the production of a convenience food. Report the findings and include consideration for the following factors. - the origin of the food product - effects of the product on life styles and the environment. - disposal of packaging.	Analyzes the cost involved in the production of convenience foods.
Waste may be reduced if fewer convenience foods are utilized	Laboratory activities emphasizing canning or preserving foods. Prepare a T.V. dinner using foods preserved in class. Compare the cost of purchased and individually prepared T.V. dinners.	Analyzes the cost and processes used in waste disposal. Summarizes the transportation cost involved in producing. convenience foods.

E.E. Problem, Major Concept 12, Major Objective 12, and Generalization (Continued)

Generalizations	Learning Experiences	Outcomes
Increased demand for convenience foods requires the use of additional additives.	Investigate the use of additives. Develop a criteria to evaluate home and commercially canned products. Compare the percentage of additives in home and commercially canned products.	Appraises the contents of home and commercially prepared foods.
Increased demand for convenience foods requires additional factories and equipment for production and disposal.	Chart the time, space requirements, equipment and cost involved in home canning and commercial food processing.	
Energy used in the production of convenience foods might be converted to other uses.	Survey the community for vacant factory or plant facilities. Develop a plan for the use of land presently occupied by factories.	Outlines various uses of land spaces.

Home Economics

Food and Nutrition

Environmental Education Problem — Food Habits and Consumption

Major Concept 13 — Societal values and attitudes toward the environment is influenced by cultural, economic, social and political factors.

Major Objective 13 — Analyzes the relationship between values, attitudes and food consumption.

Generalization — Traditional customs, religious beliefs, economic conditions and facility in the use of nutritional facts affect food consumption.

Generalization	Learning Experiences	Outcomes
Technological advances in the production and distribution of food products, in economic resources, and in educational, social and cultural environments influence individual food habits.	Conduct a cultural background survey. Discuss the social and religious aspects of food habits present in each culture.	Explains the interrelatedness of societal factors and food habits.
Communication barriers are diminished through exposure to cultural food patterns.	Recall cultural survey. Discuss verbal exchange with members of different cultural backgrounds. Prepare menus and meals highlighting cultural food patterns.	
Governmental regulations influences production and food distribution.	Survey school lunch program. Invite cafeteria manager to conduct buzz session on the use of surplus foods. Research the current trend toward large agri-business corporations. Discuss the effects on small independent farmers, quantity and quality of food products and use of environmental resources. Write a short paper, "Factors Influencing Cultural Food Patterns."	Appraises governmental regulations involved in the production and distribution of food.

Home Ecc mics

Food and Nutrition

Environmental Education Problem — Management of Resources/Consumer Consumption

Major Concept 14 — Environmental factors are limiting on the number of organisms the environment can support.

Major Objective 14 — Perceives the importance for greater food conservation to meet demands resulting from increased population.

Generalization — The population in some areas of the world have increased beyond the ability to provide basic needs.

	Learning Experiences	Outcomes
Environment factors influence the availability, quality and cost of food.	Compare population figures and practices in the U.S. and a country experiencing inadequate food supplies. Chart the differences and similarities.	Identifies societal factors affecting food production.
The need for food increases as population expands. Inadequate food supplies affect all societies. A scarcity of land coupled with an expanding population increases reliance on primary food sources.	Prepare a map illustrating areas of inadequate food supplies. Investigate environmental areas supplying food sources or products. Plan a field trip to a farm, food processing plant or wholesale retail store. Analyze the quantity of food produced per acre in the U.S. and other countries. Discuss the effects on availability and quality of food products. Analyze effects on daily meal patterns.	Describes the relationship among food supply and population.

E. 3. Problem, Major Concept 14, Major Objective 14, ...d Generalization (Continued)

Generalizations	Learning Experiences	Outcomes
A judicious use of food supplies is necessary when large segments of the population experience nutritional deficiences.	Compare the nutritional quality and quantity of daily meal patterns for the U.S. population and other countries experiencing inadequate food supplies. Chart the differences and similarities.	

ADDENDUM TO HOME ECONOMICS

CURRICULUM GUIDES

ENVIRONMENTAL EDUCATION

(WORK COPY)

HOME PLANNING

Department of Elementary and Secondary Education

Division of Curriculum and Instruction

Milwaukee Public Schools

1972

Home Economics

Home Planning

Environmental Education Problem -- Housing

Major Concept 9 -- Man has the ability to manage, manipulate and change his environment.

Major Objective 9 -- Analyzes the relationship between environmental factors, housing and quality of life.

Generalization -- Knowledge of management principles and environmental factors is necessary to achieve patterns of living.

Generalizations	Learning Experiences	Outcomes
Social, economic, cultural, technological political and environmental factors influence the form and use of housing.	Investigate the impact of social, economic, technological, political and environmental factors on housing.	Identifies factors influencing the housing quality and quantity.
	Report findings.	
National and local housing developments reflects the social organization and cultural values of citizens.	Visit various ethnic communities.	Identifies individual values and influence on housing patterns.
	Compare similarities and differences.	
	Report findings and compare to immediate community.	
	Invite resource person to discuss housing regulations and development.	
National and local resources expended on housing reflects the quality and quantity of available housing.	Chart community agencies responsible for creating adequate housing.	Outlines the role of governmental agencies in the development of adequate housing.
	Discuss extent of involvement.	
	Invite resource person to discuss agency services and functions.	

E.E. Problem, Major Concept 9, Major Objective 9, and Generalization (Continued)

Generalizations	Learning Experiences	Outcomes
Zoning ordinances and building restrictions affect the size, design and construction of housing.	Research open-housing legislation, building codes, 235 bill, Mayor Maier's tax sharing proposal and qualifications for low-income housing.	
Housing needs and wants are affected by the quality of community services, facilities and utilities.	Report findings. Draw conclusions. Prepare a set of guidelines for selecting housing. Complete housing quiz.	

Name_____

Date_____

Hour_____

HOUSING QUIZ

Directions: Place a plus (+) sign to the left of the number if the statement is true and a minus (-) sign to the left if the statement is false.

_____ 1. There is no relationship between housing patterns and one's values.

_____ 2. Resources expended on housing by a nation does not affect the form, quality, and quantity of available housing.

_____ 3. Certain qualifications are required for low-cost housing.

_____ 4. Housing is not an environmental problem.

_____ 5. Suburban residents and urban residents are interdependent.

Directions: Draw a circle around the number which best completes the statement.

A. Factors influencing the form and use of housing are:

1. Social and economic
2. Cultural and physical
3. Technological and political
4. All of the above
5. None of the above

B. Land use is best determined by:

1. Economic gains
2. Ecological compatibility
3. Sentiment
4. Engineering feasibility
5. All of the above

C. The size, design, and construction of housing are affected by:

1. Zoning ordinances
2. Building restrictions
3. Existing housing
4. 1, 2 and 3
5. 1 and 3
6. 1 and 2

Home Economics

Home Planning

Environmental Education Problem -- Management of Housing Resources

Major Concept 10 -- Man has the ability to manage, manipulate and change his environment.

Major Objective 10 -- Demonstrates ability to select housing to meet familiar needs.

Generalization -- The quality of family life and home planning is interrelated.

Generalizations	Learning Experiences	Outcomes
Green plants are the basic source of shelter.	Trace the origin of wood. List various types of woods and recommended uses. Display samples of wood.	Identifies factors contributing to housing costs.
The supply of resources affect decision making.	Tour the construction site of two comparable homes-materials, location, workmanship, and cost. Chart the similarities and differences. Report findings.	
Home selection and design should meet the needs of individuals and families.	Survey neighborhood vacant lots and investigate the site, area stability, noise levels and costs.	Outlines factors essential in providing adequate housing.
Individual and family values and goals are fundamental to decision making.	Secure floor plans of homes and investigate size and location of space for work and recreation, privacy, size and location of sleeping areas, and the image projected by the total home environment. Develop floor plans for your future home.	Concludes that management of resources and home planning is essential to the quality of life.

E.E. Problem, Major Concept 10, Major Objective 10, and Generalizations (Continued)

Generalizations	Learning Experiences	Outcomes
Societal and political factors influence the sites, quality and quantity of available housing.	Invite representatives of architectural and business firms, building trades, land-scaping firms and city and government officials to conduct buzz sessions.	

TEACHING AIDS

TEACHER REFERENCES

Barland, Hal; "Spring, And A Time To Listen"; PROGRESSIVE - The Crisis of Survival; Progressive Inc.; p. 44.

STUDENT REFERENCES

THE MILWAUKEE JOURNAL; Home Section

Name_____

Date_____

Hour_____

HOUSING QUIZ

Part I

Directions: Answer each item as concisely as possible.

1. What does HUD stand for?

2. Identify areas (in Milwaukee or community) where changes are necessary to improve the quality of life. Give suggestions for change.

3. Name at least one community project or housing development designed to improve the quality of life.

Part II

Directions: Read the following statement:

> Someone has said that the selection of housing and its management focuses on "developing that kind of atmosphere or setting in a home which enables all the people in that home, old and young, to grow into mature and healthy persons — physically, emotionally, intellectually, socially, and spiritually".

Select the paragraph that best describes a kind of home that you think might accomplish this. Change the wording if necessary to make it express your ideas or write a new paragraph if none of these express your position.

A. When I have a home of my own, I would like to keep the house attractive most of the time. I feel that a certain amount of cleanliness and order is necessary to live comfortably. I would have chairs available for sitting, beds available for sleeping and places available for activities and games. I would keep work areas orderly enough so that work could be done smoothly without long interruptions for finding misplaced equipment.

B. I like the freedom to act on the spur of the moment. Planning ahead and trying to follow a plan is to restricting for me. It takes too much time to plan and it takes the fun out of living. I'd rather get at the activity and do it without wasting time in planning.

C. I believe that looking ahead and planning is important if I am to use my time and money to have the best life style possible. I know that planning means taking time to learn all I can about what is being planned, but I am willing to investigate and try to learn so I will be able to plan successfully.